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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

UNITED STATES OF AMERICA,

Plaintiff,

v.

PACIFIC GAS AND ELECTRIC COMPANY,

Defendant.

Case No. 14-CR-00175-WHA

**RESPONSE TO ORDER TO SHOW CAUSE WHY PG&E'S CONDITIONS OF PROBATION SHOULD NOT BE MODIFIED**

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Defendant Pacific Gas and Electric Company ("PG&E") respectfully submits this memorandum in response to: (a) the Court's January 9, 2018, Order to Show Cause Why PG&E's Conditions of Probation Should Not Modified (the "Proposed Modifications"); and (b) the Court's January 17, 2019, Request for Comment.

**Preliminary Statement**

The wildfires that have plagued Northern California have had devastating consequences, enacting a terrible toll on life and property. PG&E understands and shares the Court's concern about the human and financial cost of the wildfires and the death and destruction they have wrought. And PG&E recognizes its fundamental obligations to the State of California and its residents and businesses to operate its electric and gas system safely, a task that has taken on increasing urgency and complexity in light of the effects of climate change, which then-Governor Brown described as the "new abnormal." The problems are grave; they are substantial—PG&E has nearly 100,000 miles of overhead lines across Northern California; and they need to be solved as quickly as possible. PG&E is committed to making that happen.

PG&E knows that it must play a leading role to implement changes to substantially mitigate the risk of wildfire, and PG&E is embracing that role. As the Court is aware, PG&E has already made significant changes in its leadership and its Board has committed to a refreshment process. But far more importantly, and less publicly, PG&E has focused substantial resources and efforts since the October 2017 North Bay Wildfires to help prevent catastrophic wildfires from occurring. Working closely with regulators, state and federal officials, communities, and interest groups, PG&E has developed a risk-based approach to identifying the highest risk portions of its system so that it can engage in enhanced vegetation management and system hardening (such as installing insulated wire), and it has developed a comprehensive de-energization plan that it continues to update and refine. And since the Camp Fire, PG&E has embarked upon an enhanced process to inspect and repair (where necessary) more than 700,000 structures (distribution and transmission towers and poles) across nearly 30,500 miles of the Company's electric system in areas with the greatest potential risk of fire. This process was developed

late last year and was implemented immediately with a focus on getting as much work done in high risk areas as possible by the end of May 2019. And, as set forth in more detail below, that is just one part of the Company's efforts here.

PG&E shares the Court's desire to move all of these efforts along, for the benefit of all Californians. Even so, the proposed probation modifications (the "Proposed Modifications") would not appropriately advance that goal and should not be adopted. The Proposed Modifications involve a host of policy decisions about how to address safety, reliability, and cost, and, in particular, how to do so against the backdrop of both drastic climate change and a complex state and federal regulatory framework that requires the delivery of electricity to everyone in California through an interconnected grid. The Court's proposal would make these policy decisions in the context of a probation hearing, even though regulators are currently grappling with these very same issues. And the Proposed Modifications would do so by giving PG&E only two options: either remove an extraordinary number of trees across every segment of its electric grid within six months, or instead de-energize transmission and distribution lines, shutting off power across Northern California and potentially beyond.

PG&E understands fully the Court's interest in PG&E's wildfire-related activities. With that in mind, PG&E does not object to the Court's assigning the Monitor a more active role in reviewing and monitoring the progress of PG&E's wildfire mitigation work described in detail below and then reporting to the Court on the progress of PG&E's work on a periodic basis. That would enable the Court to stay on top of steps PG&E is taking both to mitigate wildfire risk and to provide power to the citizens of California safely and reliably. But the proposed order goes much further, and in so doing, it interferes with the role of state and federal regulators without fully accounting for the risks that some of those actions may create and while imposing significant costs on California without assessing whether those costs are necessary.

Consider first the forum. The Proposed Modifications address when PG&E will de-energize its lines, how it will perform maintenance and upgrades, and whether (and how) to modify its vegetation management program. Congress, however, has given comprehensive regulatory authority over those

subjects to the Federal Energy Regulatory Commission ("FERC") for transmission lines, and Congress and the California Legislature have given the California Public Utilities Commission ("CPUC") a similarly comprehensive authority for distribution lines. Those regulators have the expertise to assess and evaluate the competing policy interests, and they are ultimately answerable to the people for the policy decisions they make. Given their institutional and technical expertise and their political accountability, those regulators are best situated to make the regulatory judgments this complex situation demands. The Proposed Modifications would interfere with these regulatory schemes and upset the balance that continues to be refined between various safety, legal, environmental and fiscal issues.

By contrast, a hearing to consider probation modifications is ill-suited for the task at hand. The issues in the Court's proposal affect stakeholders of all sorts – state and federal regulators, environmentalists, residents, emergency responders, hospitals, schools, and other users of the electric grid both inside and outside the state – and regulators routinely rely on rulemakings or other processes that allow and encourage broad participation. We appreciate the Court's reaching out to the CPUC, CAL FIRE, and the U.S. Attorney's Offices to obtain their views—their input is important and must be heard. But legal briefs assembled in two weeks by a subset of interested parties are no substitute for full participation by regulators and other appropriate parties, and a courtroom proceeding to evaluate proposed probation conditions is not an appropriate forum to develop the full range of scientific, economic, engineering, and policy judgments that are needed. The solution to these problems is best left to the regulatory arena.

Probation is, moreover, the wrong legal lens through which to view the problem. Working against the backdrop of criminal law, the Court has proposed probation modifications to "reduce to zero the number of wildfires caused by PG&E in the 2019 wildfire season." As we describe below, there are significant unintended safety consequences that could flow from attempting to achieve such a policy, and complying with the Proposed Modifications would require PG&E to violate a web of state and Federal laws and regulations. But even setting that aside, the goal expressed in the proposal and the comprehensive restrictions and requirements needed to achieve it are not (as federal law requires)

reasonably related to the convictions that gave rise to probation in the first place, and they surely extend far beyond any perceived shortcomings in the manner in which PG&E provided the notifications to the Probation Office.

Further, in pursuit of ending wildfires, the proposed new terms of probation do not address the risks and costs of de-energization, the harms stemming from overly-aggressive vegetation management, and the potential effects on the national electric grid. Nor do they take account of the impact of what would be a massive reallocation of resources from existing risk-informed wildfire-prevention measures that the Company is pursuing in consultation with its regulators. Indeed, the Proposed Modifications create the potential for significant unintended consequences in several important respects.

*First*, de-energization poses real risks. De-energizing powerlines is a tool of last resort because it presents significant public safety risks. Shutting off power is not simply a matter of inconvenience. It is also dangerous – indeed, potentially fatal absent proper planning and the mitigation of unintended consequences. As the CPUC noted just last month, "de-energization can leave communities and essential facilities without power, which brings its own risks and hardships, particularly for vulnerable communities." Proposed Decision, Order Instituting Rulemaking, Agenda ID #17064 (Dec. 14, 2018), at 2, available at http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M245/K791/245791401.PDF.De-energization impacts first responders, critical medical care, and the provision of water, sewer, and other essential services, including street lights and signals and communications systems. Indeed, even as to wildfires themselves, the costs of de-energization may in some cases outweigh the benefits.

*Second*, the Proposed Modifications concerning vegetation management likewise could have far-reaching and unintended consequences. Compliance with the Proposed Modifications is estimated to require the removal of 100 million trees or more. Clear-cutting on such a drastic scale would have significant environmental consequences, including reducing watershed protection and increasing runoff, erosion and flooding. Moreover, the proposal does not account for the myriad legal obstacles to reconfiguring the California landscape in such a fashion. Federal law limits the ability to cut trees on federal lands, such as lands administered by the United States Forest Service, which are a large amount

of acreage in PG&E's service territory. Likewise, state law requires permits for removal of "major vegetation" from areas such as the coastal zones. Environmental protection legislation such as the Endangered Species Act substantially restricts the destruction of vital habitat. And both state and federal provisions limit PG&E's ability to simply remove trees at will from private property.

*Third*, the Proposed Modifications threaten serious potential consequences for the national grid. PG&E's transmission lines in California are not self-contained, but instead are part of the linked network of transmission lines that provide power to parts or all of Arizona, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, South Dakota, Texas, Utah, Washington, Wyoming, Alberta (Canada), British Columbia (Canada) and Baja California (Mexico). De-energizing high voltage transmission lines as the proposal contemplates, particularly without the coordination necessary to do so safely, could threaten the stability of the electric grid both inside and outside PG&E's service territory. For example, de-energizing transmission lines under the conditions posed by the Proposed Modifications has the potential to destabilize and blackout large parts of the Western United States and Canada. De-energizing distribution lines likewise has the potential to destabilize PG&E's own grid and blackout Northern California, from San Francisco and the East Bay to the Oregon border.

*Fourth*, the proposal would require a massive reallocation of finite fire-prevention resources. Time, qualified personnel, and funding are not unlimited, and the expert regulators have concluded that those scarce resources must thus be deployed in a manner that has the greatest impact. The Proposed Modifications, by contrast, do not appear to contemplate any analysis of the most efficient way to allocate available resources so as to minimize the risk of wildfires. The proposal, if adopted, would require the removal of vegetation throughout PG&E's entire 70,000 square mile territory, regardless of fire risk. Every dollar or hour of labor that PG&E allocates to low-risk areas is a dollar or hour that cannot be used to mitigate risk where it is greatest, and every dollar or hour of labor devoted to tree-cutting is a dollar or hour unavailable for other approaches to fire-prevention that may be more effective.

*Finally*, the proposal is not feasible. Although the precise costs of the Court's proposal are difficult to predict with certainty, PG&E estimates that it would need to remove more than 100 million

trees, and that doing so before June 21, 2019, would require the labor of more than 650,000 full-time employees. PG&E does not believe that it could assemble a workforce of such magnitude, as it does not believe that there are enough qualified tree trimmers and pruners available in the hiring market. Hiring untrained employees for the dangerous task of trimming and pruning trees near powerlines—even if it were possible—would bring its own serious costs and risks.

Moreover, even if qualified personnel existed, the other resources do not. PG&E estimates that the cost of full compliance with the order might approach between $75 billion to $150 billion, and PG&E does not have the ability to raise those funds. If the Company were to try to fund the initiatives the proposal contemplates, PG&E would inevitably need to turn to California ratepayers for funding, resulting in a substantial increase—an estimated one-year increase of more than five times current rates in typical utility bills (assuming the cost of complying with the Proposed Modifications was $75 billion, which is at the low end of the estimated range)—for 16 million Californians. Even if that were a feasible alternative—PG&E believes it is not—that is a decision that should be left to the regulators and legislators.

In short, PG&E agrees with the Court that the status quo is unacceptable, and PG&E is committed to working aggressively and expeditiously with state and federal officials on system maintenance and upgrades and on wildfire mitigation efforts. But the path forward to mitigating wildfire risk is best designed not through probation conditions, but rather through careful coordination with state and federal regulators, after appropriate consultation with other interested parties, based on the best science and engineering advice, with policy analysis that accounts for the full range of important but often conflicting social goals. PG&E recognizes that this Court need not find a probation violation in order to modify the probation conditions, but for all the reasons PG&E has stated and will set forth in more detail below, the Proposed Modifications in the Order to Show Cause should not be adopted.

*  *  *

The remainder of this submission proceeds with the three sections that address the Proposed Modifications and explain why (1) they conflict with the decision of Federal and state legislatures to

entrust regulation of electric transmission and distribution to the expert regulators; (2) they would be impossible to implement; and (3) they are not reasonably related to the underlying criminal conviction, particularly where PG&E agrees that additional involvement of the Monitor and reporting to the Court concerning enhanced safety work that is already underway is possible.

The final section of this submission addresses the Court's Request for Comment, issued on January 17, 2019, concerning the Court's tentative findings as to the "single most recurring cause of the large 2017 and 2018 wildfires attributable to PG&E's equipment."

## ARGUMENT

### I. The Court's Proposed Modifications Would Impermissibly Intrude on the Decision of Elected Officials to Entrust Comprehensive Regulation of Electric Facilities to Federal and State Agencies.

The Court's Proposed Modifications would have the Court assume responsibility for making complex policy decisions concerning when the Company will de-energize its lines, whether (and how) to modify its vegetation management program and how it will perform maintenance and upgrades. These subjects are all within the comprehensive regulatory authority delegated by Congress to FERC and by the California Legislature to the CPUC. The Proposed Modifications would interfere with these regulatory schemes and upset the balance that regulators continue to refine among various safety, legal, environmental and fiscal issues.

#### A. Probation Conditions Cannot Override a Legislative Decision to Give Comprehensive Regulatory Authority to Federal or State Agencies.

A principal basis for imposing probation conditions is to encourage compliance with the law. *See* U.S. Sentencing Guidelines Manual § 8D1.3 (U.S. Sentencing Comm'n 2018); *see also United States v. Bragg*, 582 F.3d 965, 973 (9th Cir. 2009) ("With appropriate conditions, probation empowers the court to ensure rehabilitation, full restitution to victims, payment of fines, protection of the public, and compliance with the law."). But a court exceeds its authority under 18 U.S.C. § 3563 when it imposes probation conditions concerning subjects that a legislature has told other parts of government to comprehensively regulate, and when it imposes conditions that effectively displace a complex regulatory

scheme administered by another branch of government.

For example, where Congress has delegated authority to the Attorney General to decide whether and when a non-citizen should be deported, a court may not impose a condition of probation requiring the non-citizen to depart the country. Such an order interferes with "the comprehensive scheme for admission and deportation of aliens in 8 U.S.C. sections 1101-1362" and Congress's delegation of "primary jurisdiction to the Attorney General." *United States v. Jalilian*, 896 F.2d 447, 449 (10th Cir. 1990); *see also United States v. Abushaar*, 761 F.2d 954, 961 (3rd Cir. 1985); *cf. United States v. Castillo-Burgos*, 501 F.2d 217, 220 (9th Cir. 1974) (vacating a sentence that mandated deportation at the conclusion of the prison term because "[n]owhere in this detailed statutory scheme is there a provision for a court to deport aliens sua sponte"), *abrogated on other grounds by United States v. Rubio-Villareal*, 967 F.2d 294 (9th Cir. 1992).

The reasons for that limit on the Court's authority are compelling.

*First*, it avoids the potential conflict between a probation condition and a regulatory command. Thus, for example, the First Circuit invalidated a probation condition requiring a non-citizen to obtain the consent of the Probation Officer to reenter the country, on the ground that such a condition "leaves open the theoretical possibility that the probation officer would overrule the immigration authorities" and thereby creates a "potential conflict with the immigration laws." *United States v. Mercedes-Mercedes*, 851 F.2d 529, 531 (1st Cir. 1988). As the Court itself has previously recognized in this case, a probationer should not be placed in a position where it is subject to two competing and potentially inconsistent legal commands. (*See* Order at 2, ECF No. 916) ("The Monitor does not have authority to supplant the CPUC's authority over, or decisions related to, gas transmission operations or pipeline safety. Nor does the Monitor have authority to take action that would, directly or indirectly, require PG&E to take action contrary to the directives of its regulators.").)

*Second*, it respects congressional authority. The Court's probation authority is grounded in statute; but the more specific statutory provision takes precedence over the more general. *See Green v. Bock Laundry Mach. Co.*, 490 U.S. 504, 524 (1989). When Congress has assigned a specific subject

matter to be administered by a regulatory agency, the general probation authority should not be interpreted to cover the same subject matter. "A condition of probation may not circumvent another statutory scheme." *Abushaar*, 761 F.2d at 960.

*Third*, it shows proper regard for the institutional expertise of a regulatory agency relative to a court when it comes to accommodating competing policy priorities. When deciding how best to balance the risks of de-energization against the risk of wildfires, or the benefits of aggressive vegetation management relative to the costs to the environment and landowners, the elected branches of government are in the best position to develop the information needed to strike the appropriate balance, consult the wide range of stakeholders who have an interest in the issue, apply substantial expertise in a technical area, re-evaluate their judgments in the face of new information, and answer to voters if they strike the wrong balance. "[I]t is entirely appropriate for th[e] political branch of the Government to make such policy choices—resolving the competing interests which Congress itself either inadvertently did not resolve, or intentionally left to be resolved by the agency charged with the administration of the statute in light of everyday realities." *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 865-66 (1984). By contrast, "[j]udges are not experts in the field, and are not part of either political branch of the Government". *Id.* at 865. "[F]ederal judges—who have no constituency—have a duty to respect legitimate policy choices made by those who do. The responsibilities for assessing the wisdom of such policy choices and resolving the struggle between competing views of the public interest are not judicial ones." *Id.* at 866.

These justifications are especially compelling when probation conditions concern subject matters comprehensively regulated by a *state*. When adopting probation conditions, "the federal government has no constitutional authority to interfere with a State's exercise of its police power except to the extent the State's action intrudes on any of the spheres in which the federal government itself enjoys the power to regulate." *United States v. Snyder*, 852 F.2d 471, 475 (9th Cir. 1988). For example, applying that rule, Courts of Appeals have invalidated probation conditions that relate to state licensing schemes. *See id.* (holding that "federal courts are constitutionally barred from unilaterally ordering suspensions of state

drivers' licenses"); *cf. United States v. Sterber*, 846 F.2d 842, 844 (2d Cir. 1988) (holding that a probation condition revoking a pharmacy license "implicates important notions of federalism," and "question[ing] whether a federal district judge, 'unguided by Congress except in the most general terms,' can require a defendant to give up a state-granted professional license, particularly where the state provides a comprehensive regulatory system to handle the professional misconduct of those it licenses"). And even where the federal government might itself have the power to regulate, principles of comity and federalism constrain a federal court's discretion. *See, e.g.*, *Santa Monica Airport Ass'n v. City of Santa Monica*, 659 F.2d 100, 105 (9th Cir. 1981) ("The principles of comity and federalism militate against our invalidating a state or local regulation unless it is written in unlawful terms, or because, on its face, it is preempted."); *see also Thomas v. Kadish*, 748 F.2d 276, 278 (5th Cir. 1984) (rejecting a plaintiff's effort to challenge state bar proceedings in district court "in the light of the weight given by the Court to the values . . . that arise out of federal-state comity considerations and the 'strength of the state interest in regulating the state bar'").

### B. The Proposed Modifications Would Override Both Congress's Delegation of Authority to Regulate Electric Transmission Lines to FERC and Its Determination that the Federal Government Lacks Authority to Regulate Local Distribution Lines.

The Federal Power Act draws a clear line between federal and state authority. FERC has exclusive and comprehensive authority to regulate facilities for the interstate transmission of electricity. 16 U.S.C. § 824(b). Part and parcel of this authority is the requirement to develop and enforce standards intended to ensure the reliability of the bulk-power system—that is, the interconnected electric energy transmission network subject to FERC's jurisdiction. *Id.* § 824(d).

However, the Federal Power Act also provides that federal regulation extends "only to those matters which are not subject to regulation by the States", *id.* § 824(a), and makes clear that FERC has no general power to regulate "facilities used in local distribution or only for the transmission of electric energy in intrastate commerce". 16 U.S.C. § 824(b)(1). Similarly, FERC lacks the authority to regulate the reliability of distribution lines. 16 U.S.C. § 824o(a)(1) (the bulk-power system "does not include facilities used in the local distribution of electric energy"). These local distribution lines are subject to

the CPUC's jurisdiction. Regulation of those lines falls within the state's police power to ensure the health, welfare, and safety of its citizens. *See New York v. FERC*, 783 F.3d 946, 949 (2d Cir. 2015) ("Regulation of these exempted facilities is reserved to the states.") (citing *New York v. FERC*, 535 U.S. 1, 22 (2002)); *cf. Medtronic, Inc. v. Lohr*, 518 U.S. 470, 475 (1996) ("Throughout our history the several States have exercised their police powers to protect the health and safety of their citizens. Because these are 'primarily, and historically, . . . matter[s] of local concern,' the 'States traditionally have had great latitude under their police powers to legislate as to the protection of the lives, limbs, health, comfort, and quiet of all persons . . . .'") (citations omitted).

The Court may not use its probation power to assert federal control over regulatory areas that Congress has expressly reserved for the states. "[T]he federal government has no constitutional authority to interfere with a state's exercise of its police power except to the extent the state's action intrudes on any of the spheres in which the federal government itself enjoys the power to regulate." *Snyder*, 852 F.2d at 475. The plain text of the Federal Power Act forecloses any contention that the federal government has a regulatory interest in de-energization and vegetation management conditions as applied to lines "used in local distribution." 16 U.S.C. § 824(b)(1). The Court should respect that congressional division of authority.

1. FERC Has Enacted a Comprehensive Scheme Governing Reliability on High-Voltage Transmission Lines.

With respect to the high-voltage transmission lines subject to federal regulatory jurisdiction, Congress has adopted a comprehensive regulatory scheme that addresses reliability.

Specifically, under Section 215 of the Federal Power Act, 16 U.S.C. § 824o, FERC has the authority to approve and enforce standards that will "provide for reliable operation of the bulk-power system." *Id.* § 824o(a)(3). As FERC has explained, "the reliability mandate of section 215 . . . addresses not only the comprehensive maintenance of the reliable operation of each of the elements of the Bulk-Power System, it also contemplates the prevention of incidents, acts and events that would interfere with the reliable operation of the Bulk-Power System." Mandatory Reliability Standards for the Bulk-Power

System, 72 Fed. Reg. 16,416, 16,419 (April 4, 2007).[1] Moreover, because the operation of the grid is technically complex, Congress has not permitted FERC to act alone. Pursuant to the statute, FERC is required to certify an organization to "establish and enforce" the reliability standards, and FERC is expressly directed to "give due weight to the technical expertise of the Electric Reliability Organization." 16 U.S.C. § 824o(d)(2). To carry out this function, FERC has certified the North American Electric Reliability Corporation ("NERC") to propose reliability standards, which FERC reviews, approves, and enforces, and which carry the force of federal law. 16 U.S.C. § 824o(b)(1). *See* Mandatory Reliability Standards for the Bulk Power System, 72 Fed. Reg. at 16,416.

The reliability framework adopted by Congress recognizes that reliability standards involve difficult tradeoffs among multiple goals. To be clear, no expert assumes that the lights must remain on at all costs. The Federal Power Act itself recognizes that the standards proposed by NERC need only seek to attain an "adequate level of reliability." 16 U.S.C. § 824o(c)(1). Indeed, the reliability standards accept that de-energizing lines and cutting off service to customers (sometimes called "shedding firm load") may be the appropriate reaction to certain emergency conditions. But at the same time, FERC has recognized that the "shedding of firm load is *an operating measure of last resort* to contain system emergencies and prevent cascading [outages]." 72 Fed. Reg. 16,416, 16,478 (emphasis added).

These standards were developed in light of the experience of the 2003 Northeastern blackout, in which outages cascaded and ultimately affected tens of millions of Americans. U.S.-Canada Power System Outage Task Force, Final Report on Implementation of Task Force Recommendations at 22 (Oct. 3, 2006) ("Blackout Report"). They reflect a recognition that, because the interstate transmission grid is interconnected, unpredicted or non-standardized actions taken by one utility can have significant consequences for reliability in far-flung parts of the grid. For example, a sudden de-energization in Northern California could have impacts in Oregon, Arizona, Nevada, or other states interconnected with California as part of the "Western Interconnection."

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1 The Bulk-Power System refers to the interconnected high-voltage transmission grid subject to FERC jurisdiction.

Given these risks, FERC and NERC have created an open and transparent process designed to permit public input and careful consideration of any changes in the reliability regime. NERC is required by statute to "provide for reasonable notice and opportunity for public comment, due process, openness, and balance of interests in developing reliability standards." 16 U.S.C. § 824o(c)(2)(D). FERC, in turn, typically issues a Notice of Proposed Rulemaking when NERC submits a standard for review, accepts public comments, and only then proceeds to a final rule. *See, e.g.*, Final Rule, *Revisions to Reliability Standard for Transmission Vegetation Management*, 142 FERC ¶ 61,208 (2013). Any FERC decision on a reliability standard is subject to rehearing requests and appeal to the Court of Appeals by any party. 16 U.S.C. § 825l(a),(b). By contrast, the Proposed Modifications create no such procedural rights for interested parties and no path to appeal for those injured by the loss of power or destruction of vegetation.

2. The State of California Has Enacted a Comprehensive Scheme Governing Intrastate Electric Distribution.

California has also actively exercised the regulatory power reserved to it. Article XII of the Constitution of the State of California established the CPUC and vests it with the authority to fix rates and establish rules for public utilities. Cal. Const. Art. XII, §§ 3, 6. The California State Legislature and the CPUC have together enacted a complex and comprehensive scheme of regulations for intrastate electric distribution.

With respect to vegetation management, California law requires that electric utilities clear all vegetation within 10 feet of transmission and distribution poles and towers that support specified electric equipment (*e.g.*, a switch, fuse or transformer), unless the powerline voltage is 750 volts or less. Cal. Pub. Res. Code § 4292; CPUC General Order 95 Rule 35, *available at* http://cpuc.ca.gov/gos/GO95/go_95_rule_35.html. California law also requires that electric utilities maintain between vegetation and powerlines a radial clearance of a distance that varies based on the voltage of the line. Cal. Pub. Res. Code § 4293; CPUC General Order 95 Rule 35. Utilities must also remove all dead or dying vegetation that has the potential to contact electric facilities in the event of

failure. Cal. Pub. Res. Code § 4293; CPUC General Order 95 Rule 35.

The CPUC has also exercised significant control over de-energization policies. For example, on December 13, 2018, the CPUC initiated a proceeding to further examine its rules regarding de-energization of powerlines and invited all stakeholders to provide their input. CPUC, Press Release, *CPUC to Further Examine Electric Utility De-energization* (Dec. 13, 2018), https://bit.ly/2sxkd58; CPUC Decision 18-12-005 (Dec. 19, 2018), *available at* http://docs.cpuc.ca.gov/PublishedDocs-/Published/G000/M251/K987/251987258.PDF. This proceeding is just one example of the fact that when the CPUC promulgates regulations, it incorporates significant due process and procedural protections that ensure full consideration of the complex issues before the Commission and all interests that are implicated. CPUC rulemaking proceedings typically include workshops and several rounds of comments, which allow all interested parties the opportunity to raise for the Commission any issue implicated by the matter under consideration.

The political choice to entrust wildfire mitigation efforts involving electric utilities to these regulators was confirmed by the California legislature just last year when it enacted Senate Bill 901 ("SB 901"). Under SB 901, which was drafted in response to the October 2017 North Bay Wildfires, all California electric utilities must prepare, submit and implement wildfire mitigation plans in cooperation with the CPUC. Sen. Bill No. 901 (2017-2018 Reg. Sess.), *available at* https://leginfo.legislature.ca.gov-/faces/billTextClient.xhtml?bill_id=201720180SB901. Those mitigation plans will address policies concerning de-energization, vegetation management and facility inspection and maintenance, all of which are already the subject of extensive federal and state regulation. The CPUC initiated an Order Instituting Rulemaking open to the public to specify requirements and timing for the wildfire mitigation plans. California utilities, consumer advocates, municipalities and counties, and community representatives are participating and commenting on the requirements for the plans, which must be submitted by February 6, 2019. Through the Proposed Modifications, the Court would impermissibly supplant this entire regulatory effort. *See Abushaar*, 761 F.2d at 960 ("A condition of probation may not circumvent another statutory scheme.").

The CPUC is also vested with exclusive jurisdiction to determine the rates customers pay for electricity from distribution lines. *See* Cal. Const., Art. XII, § 6. No investor-owned utility has the authority to unilaterally raise its rates. Rather, they must request a rate increase and are entitled to one *only* if the increase is approved by the CPUC after the request is adjudicated in an administrative proceeding. Cal. Pub. Util. Code § 454(a). As discussed *infra*, complying with the Court's Proposed Modifications would be extremely resource- and cost-intensive even if compliance were physically possible. Thus, even if compliance were possible, it could be funded only through substantial rate increases that cannot be imposed without the CPUC's approval. PG&E estimates that compliance could cost between $75 billion to $150 billion, which, to raise in a year, would require a substantial increase—an estimated increase of more than five times current rates in typical residential utility bills (assuming the cost of complying with the Proposed Modifications was $75 billion, which is at the low end of the estimated range)—for 16 million Californians. The question of whether such significant expenditures are justified should be left to the CPUC.

### C. The Proposed Modifications Would Disrupt the Complex Regulatory Scheme Struck by PG&E's Regulators.

The natural environment that existed when PG&E's electrical system was first designed and constructed is fundamentally different than the environment today. The risk profile has materially changed, and that change has accelerated exponentially. The CPUC in particular has carefully examined these changing conditions and balanced competing interests as it has evaluated the best approach to address the increased wildfire risk resulting from extreme weather.[2] In doing so, the regulators have adopted a risk-based approach that recognizes the need to balance competing interests and prioritize efforts to account for practical limitations.

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[2] The CPUC has also acknowledged that certain wildfire risk is outside the scope of regulatory control. For example, as CPUC President Picker recently noted, although one in ten wildfires is caused by utility infrastructure, half of those fires are caused by extrinsic actors, such as Mylar balloons or animal contact with utility facilities, which cannot be accounted for in a wildfire mitigation plan. *See* California Public Utilities Commission, Prehearing Conference Transcript, Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901 (2018), Rulemaking 18-10-007, at 63, *available at* https://calmatters.org/wp-content/uploads/CPUC-Meeting.pdf.

A good example of this risk-based approach to evolving climate conditions is the CPUC's expansive effort to identify the areas of California that are at the highest risk of wildfires and then deploy targeted regulations meant to mitigate the risk in those areas. The CPUC first initiated this rulemaking process in 2008 after a series of fires in Southern California. The regulations ultimately adopted as a result of that process created different standards for "high fire-threat areas," defined as areas with "an elevated risk for powerline fires igniting and spreading rapidly." CPUC Fire Safety Rulemaking Background, *available at* http://www.cpuc.ca.gov/firethreatmaps/. These areas initially were defined in fire threat maps adopted by the CPUC in 2012, according to which the only portion of PG&E's service territory that was classified as a "high fire threat area" was Santa Barbara County. *See* CPUC Decision 12-01-032 (January 18, 2012), at 262–63, *available at* http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/-FINAL_DECISION/157605.PDF (showing Reax Map for Northern California and CAL FIRE's Fire and Resource Assessment Program Map for Santa Barbara County).

In the face of continued climate change, the CPUC adopted new official Fire-Threat Maps on January 19, 2018 ("2018 Fire-Threat Map"). These maps were developed by the CPUC only after extensive discussions with, and submissions by, utility personnel, consultants and independent experts, including CAL FIRE. The 2018 Fire-Threat Map identified the highest wildfire risk areas as Tier 2 and Tier 3. Tier 2 was identified as those areas with "elevated risk (including likelihood and potential impacts on people and property) from wildfires associated with overhead utility powerlines or overhead utility power-line facilities also supporting communication facilities," and Tier 3 areas are those with "extreme risk" of the same. CPUC Decision 17-12-024 (Dec. 21, 2017), at 9, *available at* http://docs.cpuc.ca.gov/-PublishedDocs/Published/G000/M200/K976/200976667.PDF. Together with certain other areas identified by the U.S. Forest Service ("USFS") and CAL FIRE, the CPUC Fire-Threat Map's Tier 2 and Tier 3 areas comprise the High Fire Threat Districts ("HFTDs") with respect to which the CPUC has now enacted enhanced fire-safety regulations. *Id.* at 2. While only approximately 15 percent of PG&E's service territory previously had been identified as having elevated fire risk, more than

half of PG&E's service territory (25,000 miles of PG&E distribution lines and over 5,500 miles of PG&E transmission lines) now falls within Tier 2 or Tier 3.

As discussed below, the Proposed Modifications concerning de-energization, vegetation management and electrical facility inspection and maintenance would interfere with the carefully constructed regulatory scheme that is focused on these high-risk areas and, in doing so, risk significant unintended consequences.

1. The Court's De-energization Condition Would be a Policy Judgment About How to Balance Complex Risks that the Law Authorizes Federal and State Regulators, Not the Courts, to Make.

**a. Prospective De-Energization Is a Tool of Last Resort Because It Poses Significant Public Safety Risks.**

De-energizing powerlines in advance of weather conditions and other environmental factors that indicate extreme fire risk ("prospective de-energization") is a tool of last resort because it poses significant public safety risks that can outweigh the benefit of the potential reduction in wildfire risk. Shutting off power is not simply a matter of inconvenience. It is dangerous and potentially fatal.

The fact that de-energization creates significant risks has been confirmed by California's regulatory authority. In 2012, the CPUC warned that San Diego Gas & Electric ("SDG&E") "should shut off power only as a last resort, and only when SDG&E is convinced there is a significant risk that strong Santa Ana winds will topple powerlines onto flammable vegetation," advising that "[a]s a general principle, SDG&E should keep power flowing when wind speeds exceed 56 mph" because "[w]ithout power, numerous unsafe conditions can occur." CPUC Decision 12-04-024 (Apr. 26, 2012), at 29-30, *available at* http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/165063.PDF. Just last month, the CPUC reiterated the risks of prospective de-energization when it opened a new rulemaking proceeding (the "De-energization Proceeding") to conduct a comprehensive review of prospective de-energization programs, noting that "de-energization can leave communities and essential facilities without power, which brings its own risks and hardships, particularly for vulnerable communities." CPUC Proposed Decision, Order Instituting Rulemaking, Agenda ID #17064 (Dec. 14,

2018) at 2, *available at*: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/-M245/K791/245791401.PDF.

Specifically, de-energization impacts first responders, critical medical care and the provision of water and other essential services, including street lights and signals and communications systems. These concerns include the following, many of which have been raised by the CPUC and/or the communities and constituencies potentially affected by them:

<u>Medical Impacts</u>: A power shut-off event creates "unique risks to persons with disabilities and with medical conditions." CPUC Decision 09-09-030 (Sept. 10, 2009) (Concurrence) at 2, *available at* docs.cpuc.ca.gov/publishedDocs/published/FINAL_DECISION/107145. Persons who rely on personal medical devices such as powered breathing machines, electric nerve stimulators and hemodialysis machines are particularly impacted. *See* Motion of Disability Rights Advocates to Reopen the Record for the Taking of Additional Evidence (Aug. 31, 2009), at 3, *available at* http://docs.cpuc.ca.gov/PublishedDocs/EFILE/MOTION/106413.PDF (identifying impacts of de-energization on people with medical conditions that may "rely on electrically powered breathing machines for survival" or "must maintain a certain body temperature to preserve their health"); Deborah Villalon, *Sharp criticism for PG&E's pre-emptive power outage*, FOX KTVU, Oct. 16, 2018, *available at* http://www.ktvu.com/news/sharp-criticism-for-pg-e-s-pre-emptive-power-outage. PG&E has approximately 192,000 Medical Baseline customers who rely on these types of devices, and more than 1,500 health-related facilities, including general medical and surgical hospitals and nursing care facilities, in its service area.

<u>Communications Impacts</u>: A power shut-off event disrupts landline and wireless phone service as well as access to radio, television and the internet. Individuals lose the ability to contact emergency services, receive emergency warnings or otherwise access critical news and safety information. CPUC Decision 09-09-030, at 51. Cell towers can operate after a shut-off using batteries and generators, but only for roughly 4 to 12 hours. *Id*. at 31. Impacted individuals are

left only with landlines, which themselves often rely on electricity and are increasingly absent from homes. *See* Nicholas Ibarra, *PG&E's plan to shutoff power when fire risk is high raises concern in Santa Cruz County*, Santa Cruz Sentinel, June 26, 2018, *available at* https://www.santacruzsentinel.com/2018/06/26/pgampes-plan-to-shutoff-power-when-fire-risk-is-high-raises-concern-in-santa-cruz-county/ ("Cellphone service in Bonny Doon ranges from spotty to nonexistent and Davidson said an increasing number of residents no longer have land-lines in their homes.").[3]

Water and Wastewater Impacts: A power-shut off event impacts the ability of water utilities to provide water to customers and prevents those who rely on water pumps from getting water from their own wells. It also requires wastewater facilities to rely on backup generators to prevent spills or discharges. *Id*. at 37. PG&E's service territory covers more than 7,000 water-related facilities. Lack of water and potentially limited wastewater facilities are not just inconvenient, but can cause serious health and safety issues. *See* Cheri Carlson, *Counties say Southern California Edison, PG&E power shutoffs take toll on safety, finances*, Ventura County Star, Jan. 20, 2019, *available at* https://www.vcstar.com/story/news/local/2019/01/10/southern-california-edison-pg-e-power-shutoffs-wildfires-public-safety/2486196002/ (director of Santa Barbara County's Office of Emergency Management saying that shut-offs impact public safety, including safe drinking water). In addition, lack of water may impact the fire departments that are within PG&E's service area and leave them unable to fight fires. *See* CPUC Decision 09-09-030, at 53; Opening Comments to Proposed Decision and Alternate Proposed Decision by Valley Center

[3] In some communities within PG&E's service area, cellular service is not available at all. For example, because all Sierra County communities lack cellular service, they largely rely on land-line service via AT&T u-verse. Without electricity, these homes may lose their only means of communication, including their ability to receive Sierra County's emergency warnings. 2018.11.06 Letter from Sierra County Board of Supervisors to R. Kelly (attached hereto as Exhibit A). The result is that in the event of an emergency situation caused by extreme weather (including the risk of fire ignited by non-electrical sources), individuals may not learn of the emergency or be able to report the emergency, thereby delaying evacuation efforts or hindering an effective emergency response. *See* CPUC Decision 09-09-030, at 51.

Municipal Water District *et al*. (Aug. 31, 2009), *available at* http://docs.cpuc.ca.gov/PublishedDocs/EFILE/CM/106535.PDF.

<u>Transportation and Evacuation Impacts</u>: A power shut-off event impacts traffic safety and evacuations. CPUC Decision 09-09-030, at 52-53. A lack of traffic signals risks increased traffic and pedestrian accidents, particularly at night, and requires first responders to be diverted to directing traffic. *Id*. at 53. A lack of power can leave gas stations without the ability to pump fuel, and individuals who are elderly or have disabilities may be trapped in their homes if they are unable to manually open their electric garage doors. *See* Lizzie Johnson & Michael Cabanatuan, *PG&E power shutdown: No coffee, no gas. But Calistoga takes shutdown in stride*, S.F. Chronicle., Oct. 15, 2018, *available at* https://www.sfchronicle.com/california-wildfires/article/PG-E-power-shutdown-No-coffee-no-gas-But-13309296.php; CPUC Decision 09-09-030, at 52.

It is not feasible in many instances to limit the impact of a power shut-off event to a localized area facing an extreme wildfire risk. Electric lines traverse rural areas in high wildfire risk zones to provide electricity to customers in urban areas, such as the San Francisco peninsula and East Bay, and de-energization of those rural lines can affect large numbers of customers outside of the at-risk area. If PG&E were required to de-energize high voltage transmission lines above 100 kV ("bulk power transmission"), this could require shutting off power to hundreds of thousands or even millions of customers, regardless of whether they are in a high wildfire risk area and thereby creating the safety risks described above across a broad swath of Northern California. For example, the de-energization of 115 kV transmission lines that run through an extreme fire risk zone in the East Bay would shut off power to significant portions of the rest of the East Bay area, including Oakland, Alameda, Berkeley, Richmond and San Leandro. The de-energization of 500 kV transmission lines could even impact the power grid outside of PG&E's service territory up to and including the entire Western Interconnection, which covers all or part of fourteen states, part of Baja California in Mexico, and parts of Canada.

**b. California Has in Place a Comprehensive Regulatory Process Engaged in Balancing the Benefits of De-Energization with the Public Safety and Reliability Risks Described Above.**

The CPUC first addressed prospective de-energization in 2008 when SDG&E sought permission to prospectively de-energize to mitigate specific and significant wildfire risks.[4] Application 08-12-021 (Filed Dec. 22, 2008). The CPUC denied SDG&E's application without prejudice, concluding that "SDG&E ha[d] not met its burden to demonstrate that the benefits of shutting off power outweigh the significant costs, burdens, and risks that would be imposed on customers and communities in the areas where the power is shut off," but noted that its denial of SDG&E's application did "not affect SDG&E's authority . . . to shut off power in emergency situations when necessary to protect public safety." CPUC Decision 09-09-030, at 2; *id.* at 61.

In a subsequent 2012 decision, the CPUC granted a disability rights group's petition to modify the CPUC's prior ruling to require that SDG&E provide notice and mitigation when it implemented a public safety power shut-off. CPUC Decision 12-04-024, at 2. The CPUC also provided additional guidance regarding the specific conditions that might permit a SDG&E shut-off event and identified a list of factors the CPUC would consider in determining whether a power shut-off would be considered "reasonable." Those factors included wind speed, direction and load on affected electric facilities; type of electric facilities affected; risk of wind-caused structural failures; vegetation fuel load and moisture level; and red flag warnings from the National Weather Service. *Id* at 31. The CPUC again emphasized that "there is a strong presumption that power should remain on for public safety reasons," and that "SDG&E should rely on other measures, to the extent available, as an alternative to shutting off power." *Id.* at 30.

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[4] In 2008, Northern California had not yet experienced the confluence of weather events that has led to a dramatic increase in wildfire risk here. SDG&E proposed prospective de-energization to address what was at the time a heightened risk unique to its service territory, declaring in its application that "[t]here are a number of significant changes in the conditions that are prevalent in Southern California and/or SDG&E's service territory that support implementation of proactive de-energization." Application 08-12-021 (Filed Dec. 22, 2008), at 2, *available at* http://docs.cpuc.ca.gov/PublishedDocs/EFILE-/A/95833.PDF.

Following the October 2017 North Bay Wildfires, the CPUC explained that "[r]ecent California experience with wildfires demands that we enhance existing de-energization policy and procedures." CPUC Resolution ESRB-8 (July 16, 2018), at 5, *available at* http://docs.cpuc.ca.gov/PublishedDocs-/Published/G000/M218/K186/218186823.PDF. In doing so, the CPUC again advised that "[t]he decision to de-energize electric facilities for public safety is complex and dependent on many factors including and not limited to fuel moisture; aerial and ground firefighting capabilities; active fires that indicate fire conditions; situational awareness provided by fire agencies, the National Weather Service and the USFS; and local meteorological conditions of humidity and winds." *Id.* at 8. The resolution reiterated prior guidance from the CPUC that it would evaluate a utility's decision to de-energize for reasonableness to determine whether the utility was in compliance with regulatory and statutory requirements and qualified for an exemption from liability for customer service interruptions. *See id.* at 4-5; PG&E Electric Rule No. 14, Shortage of Supply and Interruption of Delivery, *available at* https://www.pge.com/tariffs/tm2-/pdf/ELEC_RULES_14.pdf.

Through the De-energization Proceeding instituted last month, the CPUC will "examine its rules allowing electric utilities under the Commission's jurisdiction to de-energize powerlines in case of dangerous conditions that threaten life or property in California". CPUC Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions, Rulemaking 18-12-005 (Dec. 13, 2018) at 1, *available at* http://docs.cpuc.ca.gov/PublishedDocs/Published/G000-/M251/K987/251987258.PDF. As part of the De-energization Proceeding, the CPUC will conduct a comprehensive review of de-energization focusing on: "[e]xamining conditions in which proactive and planned de-energization is practiced; [d]eveloping best practices and ensuring an orderly and effective set of criteria for evaluating de-energization programs; [e]nsuring electric utilities coordinate with state and local level first responders, and align their systems with the Standardized Emergency Management System framework ("SEMS"); [m]itigating the impact of de-energization on vulnerable populations; [e]xamining whether there are ways to reduce the need for de-energization; ensuring effective notice to affected stakeholders of possible de-energization and follow-up notice of actual de-energization; and

[e]nsuring consistency in notice and reporting of de-energization events." *Id.* at 2. The CPUC will "seek input from affected communities, governments, first responders and other stakeholders." *Id.* at 3. The CPUC staff has already held two workshops, with a scoping memo scheduled for February 2019 and proposed and final decisions on de-energization expected by the summer of 2019. *Id.* at 11-12.

The Court's Proposed Modifications would preempt this process. The proposed requirement that "PG&E must de-energize any part of its grid not yet rated as safe by PG&E for the wind conditions then prevailing until those conditions have subsided" does not appear to take into consideration any circumstances other than potential equipment failure in a high-wind event and is contrary to the CPUC's guidance that utilities only de-energize where there is "an imminent and significant risk that strong winds will topple its power lines onto tinder dry vegetation or will cause major vegetation-related impacts on its facilities during periods of extreme fire hazard." CPUC Resolution ESRB-8, at 4 (emphasis omitted). The Court's Proposed Modifications likewise would conflict with the CPUC's finding that utilities must consider multiple factors including fuel moisture, existing fires and firefighting capabilities, meteorological conditions and humidity in addition to wind when making a de-energization decision. *Id.* at 8. As a result, if PG&E were to comply with the Court's apparent de-energization directive, rather than the CPUC's guidance, it would violate the regulatory standards that currently govern de-energization and would expose PG&E to liability for making an unreasonable de-energization decision.

**c. Federal Law Also Has Detailed Requirements Governing Reliability that Impact De-energization.**

The Court's proposed de-energization condition is likewise inconsistent with federal regulations governing PG&E's operation of high voltage transmission lines. As stated above, the Federal Power Act provides FERC with exclusive jurisdiction over the reliability standards for network transmission lines and facilities. 18 U.S.C. § 824o(b)(1). Under the powers of the Federal Power Act, FERC has delegated its rulemaking authority on reliability to NERC. *North American Electric Reliability Corp.*, 117 FERC ¶¶ 61,126, 61,651 (2006), *aff'd sub nom. Alcoa, Inc. v. FERC*, 564 F.3d 1342, 1344 (D.C. Cir. 2009). NERC's reliability standards contain hundreds of requirements that electric utilities such as PG&E that

own transmission facilities must follow. *See generally* NERC United States Mandatory Standards Subject to Enforcement, *available at* https://www.nerc.com/pa/stand/Pages/Reliability-StandardsUnitedStates.aspx?jurisdiction=United%20States; CAISO Outage Procedure No. 3210, Version 16.7, Sept. 27, 2018; PG&E Transmission Application for Work and Timelines, Utility Procedure TD-1400P-02 ("TD-1400P-02"), Rev. 1, Apr. 3, 2018. While the state regulators, such as the CPUC, may pass safety regulations governing transmission lines, the CPUC's standards cannot be inconsistent with NERC's reliability standards. 18 U.S.C. § 824o(i)(3); Cal. Pub. Util. Code §§ 399.2(a), 451; CPUC Resolution ESRB-8.

Because transmission lines connect and provide power to large swaths of North America, NERC has established Reliability Coordinators to oversee the interconnected networks of transmission that provide power to the United States, Canada and Mexico. FERC Reliability Primer (2016) at 11, *available at* https://www.ferc.gov/legal/staff-reports/2016/reliability-primer.pdf; NERC Glossary of Terms at 25, Reliability Coordinator, *available at* https://www.nerc.com/files/glossary_of_terms.pdf (last visited Jan. 16, 2019); NERC Standard IRO-017-1 – Outage Coordination (Nov. 19, 2015) at 1-2, *available at* https://www.nerc.com/_layouts/15/PrintStandard.aspx?standardnumber=IRO-017-1&title=Outage%20Coordination&jurisdiction=United. PG&E's transmission lines are part of the Western Interconnection, which is the linked network of transmission lines that provide power to parts or all of Arizona, California, Colorado, Idaho, Montana, Nebraska, Nevada, New Mexico, Oregon, South Dakota, Texas, Utah, Washington, Wyoming, Alberta (Canada), British Columbia (Canada) and Baja California (Mexico). FERC Reliability Primer at 11. A NERC standard on outage coordination requires an electric utility to inform its Reliability Coordinator of a planned outage and provide information to allow the Reliability Coordinator to, among other things: (i) evaluate the impact of outages; (ii) identify issues and conflicts the planned outage may cause; and (iii) establish a notification process for the areas, entities and individuals that will be impacted by the planned outage. NERC Standard IRO-017-1 at 1-2; *see generally* CAISO Outage Procedure No. 3210; TD-1400P-02. As may be expected, it takes significant time to collect and disseminate such information. NERC may impose penalties on electric

utilities that initiate planned outages without complying with the information process or without approval from the Reliability Coordinator. *See* NERC Standard IRO-017-1 at 1-3; 18 U.S.C. § 824o(e).[5] In the face of such regulation, prospectively de-energizing transmission lines is extremely difficult.

If PG&E were required to de-energize high voltage transmission lines pursuant to the Court's Proposed Modifications, it almost certainly would not have enough time to study the feasibility and impacts, comply with all the regulatory requirements, and secure the regulatory approval necessary for a planned outage that de-energizes high-voltage transmission lines, and it is unclear that de-energizing high voltage transmission lines under this Court's proposal would meet NERC's criteria for an unplanned or forced outage. *See* CAISO Business Practice Manual for Outage Management, Version 17, §§ 4.1, 6.2.1 (Oct. 31, 2018), *available at* https://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM-=Outage%20Management; Peak Reliability Outage Coordination Process, Version 1.1, §§ 6-12 (Mar. 13, 2017) *available at* https://www.peakrc.com/Outage%20Coordination/Outage%-20Coordination%20Process%20Document%20v1_1.pdf. The proposed modification, therefore, would place PG&E in a position where it would have to choose between possibly violating federal regulations governing power transmission or violating the Court's Order. More importantly, a requirement to de-energize high-voltage transmission lines, particularly without the notifications and coordination necessary to do so safely, could threaten the stability of the electric grid both within its service territory and far beyond it.

[5] The outage coordination standard is only one of many reliability standards PG&E must comply with regarding the operation of its transmission lines. *See, e.g.*, NERC Standard FAC-010-32 – System Operating Limits Methodology for the Planning Horizon (Nov. 19, 2015), *available at* https://www.nerc.com/_layouts/15/PrintStandard.aspx?standardnumber=FAC-010-3&title=System%20Operating%20Limits%20Methodology%20for%20the%20Planning%20Horizon&jurisdiction=United.

**d. PG&E Has Worked in Coordination with Other Utilities and Affected Parties to Develop a De-Energization Plan to Address Increased Wildfire Risk While Balancing Competing Safety Concerns and Complying with Federal and State**

Following the October 2017 North Bay Wildfires, PG&E recognized that additional measures were required to further mitigate the increasing wildfire risk in Northern California. One of those measures was to develop a Public Safety Power Shut-off ("PSPS") program to provide a framework for de-energizing distribution lines that are in or cross HFTD areas.

PG&E's PSPS program is designed to balance the competing public health, safety and welfare risks presented by wildfires and similar risks presented by the de-energization of powerlines discussed above, consistent with the CPUC's guidance. PG&E considers many criteria when deciding whether to implement a PSPS, including: (1) "Extreme" fire danger threat level, as classified by the National Fire Danger Rating System; (2) a Red Flag Warning declared by the National Weather Service; (3) low humidity levels, generally 20 percent and below; (4) sustained winds above approximately 25 mph and wind gusts in excess of approximately 45 mph; (5) site-specific conditions such as temperature, terrain and local climate; (6) moisture content of dry fuel on the ground and live vegetation that could serve as fuel for a wildfire; and (7) on-the ground, real-time observations from PG&E field crews. *See* Public Safety Power Shutoff Policies and Procedures (September 2018) at 3, *available at* http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/Public-Safety-Power-Shutoff-Policies-and-Procedures-September-2018.pdf. To support this decision-making, PG&E uses information from PG&E's Wildfire Safety Operations Center and the PG&E Meteorology team, which constantly monitor weather conditions across PG&E's system. *Id.*

PG&E has devoted significant time and resources to develop its PSPS program and continues to devote significant time and resources to improve the program by, among other things: (1) installing 200 weather stations in 2018 with plans to install at least 200 more this year to increase the accuracy of weather data that can be used to evaluate a shut-off; (2) installing nine high-definition cameras in 2018 with plans to install approximately 60 more in 2019, and nearly 600 cameras by 2022, in areas identified

with input from PG&E's Meteorology team to enhance situational awareness and allow PG&E and fire agencies to monitor over 90 percent of PG&E's HFTD areas by 2022; (3) developing forecast models that use data and information from the National Weather Service ("NWS") and the European Center for Medium Range Forecasting ("ECM"), which are input into PG&E's proprietary in-house mesoscale forecast model, PG&E Operational Mesoscale Modeling System ("POMMS") to generate short- and medium-term fire danger forecasts across PG&E's service area; (4) actively working to improve its fire-ignition modeling capabilities and develop ignition spread modeling capabilities based on current and forecast weather models; (5) adding new sectionalizing devices that would enable PG&E to more specifically target the areas of concern for de-energization and thereby reduce impact on customers; and (6) expanding the scope of PSPS in 2019 to also provide a framework for de-energizing distribution lines in Tier 2 HFTD areas.

PG&E also continues to perform significant direct outreach to customers, including those who provide critical services, such as hospitals, fire stations, water agencies and telecommunications providers. In 2018, PG&E held over 450 meetings with community stakeholders to talk about wildfire safety efforts and coordination, reached out to residential customers and businesses in or near HFTDs through letters, postcards and emails to share information and help them prepare, and reached out directly through mail, emails and automated calls to the 19,000 customers who have enrolled in PG&E's Medical Baseline Program. PG&E is expanding and building upon these efforts in 2019.

2. The Court's Proposed Vegetation Management Conditions Likewise Would Amount to a Policy Judgment That Disrupts Policy Choices Made by Political Branches at the Federal and State Levels and Would Have Negative and Unlawful Consequences.

Vegetation management, like de-energization, is a complex issue that requires regulators and decision-makers to consider many variables. Before determining the clearance that should be required between vegetation and electric equipment, the types of trees that should be removed or pruned, or the extent to which regulations should be tailored to local conditions, decision-makers must account for a wide range of topographical, geographic and weather conditions. In addition to technical information, regulators must also carefully weigh the risks that can be reduced against the costs of

mitigating them, as certain areas of each utility's service area present higher wildfire risks than others, and it is critical that a utility's resources be deployed in a reasonable, risk-informed way.

The Proposed Modifications would require PG&E to "remove or trim all trees that could fall onto its power lines, poles or equipment in high-wind conditions, branches that might bend in high wind and hit power lines, poles or equipment, and branches that could break off in high wind and fall onto power lines, poles or equipment." (Order at 2.) These Proposed Modifications apply to PG&E's entire 70,000 square mile territory, which has more than an estimated 100 million trees that have the potential to grow or fall into overhead powerlines. To comply with the Proposed Modifications, PG&E would have to remove every single one of those trees, and that does not include the innumerable branches on trees further away from its powerlines that also may potentially fall within the scope of the Proposed Modifications.

As described in detail below, the CPUC in particular has designed a vegetation management regulatory regime that balances various legal and environmental interests and adopts a risk-focused approach to wildfire mitigation. PG&E has created vegetation management programs that not only comply with those regulations but also, where feasible and legal, go even further. PG&E, like the CPUC, has reasonably and appropriately focused its enhanced efforts on those areas designated as Tier 2 or Tier 3 HFTD areas. The Proposed Modifications, by contrast, do not account for the fact that wildfire risk is significant in some areas and small in others. By diverting labor and capital to low-risk areas, the Proposed Modifications compromise PG&E's capacity to prevent fires where they are most likely to occur. The Proposed Modifications would also require PG&E to violate various federal and state laws.

**a. Designing a Vegetation Management Regulatory Scheme Requires Consideration of Various Interlocking and Sometimes Conflicting Legal and Environmental Issues.**

In California, tree-clearing around powerlines is fraught with interlocking and sometimes conflicting perspectives. The regulations under which PG&E operates—regulations promulgated by Congress, the California State Legislature, FERC and the CPUC—are intended not only to reduce the risk of fire, but also to ensure that electricity remains affordable while protecting the natural landscape

and preserving threatened and endangered species and their habitats.

Clear-cutting on the scale required by the Proposed Modifications would have significant environmental consequences, including reducing watershed protection and increasing runoff, erosion and flooding. *See, e.g.*, Cal. Pub. Res. Code § 4512(b) ("The Legislature further finds and declares that the forest resources and timberlands of the state . . . provid[e] watershed protection"); U.S. Environmental Protection Agency, Human-Made Changes, Agents of Watershed Change, https://bit.ly/2QTjHrE. Further, as Peter Miller, the Director of the Western Region of the Climate and Clean Energy program at the Natural Resources Defense Council, states, "[t]rees are one of the key strategies needed to address the threat of climate change" and "[c]utting down millions of trees would result in a significant release of greenhouse gasses" as well as "expose [Northern California homes to] more solar gain, increasing the demand for air conditioning, resulting in greater power needs and further greenhouse gas emissions, as well as higher utility bills."[6]

Complying with the Proposed Modifications would also require PG&E to violate a web of state and federal laws and regulations. For example, a portion of PG&E's powerlines runs through lands administered by the USFS. The USFS requires that all non-recreational activities, including tree removal, be conducted only after obtaining a USFS permit. *See* 16 U.S.C. § 551 (conferring regulatory authority on the Secretary of Agriculture); Forest Service, Information Collection; Forest Products Removal Permits and Contracts, 83 Fed. Reg. 16824-03 (Apr. 17, 2018) ("Under 16 U.S.C. 551 . . . individuals and businesses wishing to remove forest products from National Forest System lands must request a permit."). Before clear-cutting portions of the national forests, as the Proposed Modifications would require, PG&E would be required to apply for and obtain such a permit, which would trigger environmental review under the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321 *et*

[6] Affidavit of Peter Miller, attached hereto as Exhibit B.

*seq*., and implementing regulations, 40 CFR §§ 6.200-6.210.[7] Even assuming that the USFS would grant PG&E's request for a permit to clear-cut portions of national forests (which is unlikely), complying with the Proposed Modifications would be difficult, as the permitting and environmental review process would introduce substantial delay to a project whose deadline provides no time to spare. The only way to comply with the Proposed Modifications would be for PG&E to ignore the permitting process and violate federal law.

PG&E's powerlines also run through the "coastal zone" established by California state law. *See* Cal. Pub. Res. Code § 30103(a). Under the California Coastal Act, any person wishing to remove "major vegetation" from the coastal zone must first obtain a coastal development permit. *See id.* § 30600(a) ("[A]ny person . . . wishing to perform or undertake any development in the coastal zone . . . shall obtain a coastal development permit."); *id.* § 30106 (defining "development" to include "the removal or harvesting of major vegetation other than for agricultural purposes"). Clear-cutting on the scale the Proposed Modifications contemplate would trigger the coastal development permit requirement under the California Coastal Act, as well as associated environmental review under the California Environmental Quality Act ("CEQA"), Cal. Pub. Res. Code §§ 21000 *et seq.*—a process which would substantially delay removal, again leaving PG&E with the dilemma of whether to comply with the Court's Order or to comply with state law.

The Proposed Modifications could also put PG&E in conflict with other environmental regulations. For example, the Endangered Species Act prohibits harming or harassing endangered

[7] FERC has previously recognized the importance of federal and private landowner rights in connection with vegetation management policies. To improve the technical quality of its decision-making, Commission staff retained the Pacific Northwest National Laboratory to review the technical assumptions behind NERC's mathematical analysis of the appropriate clearances. Notice of Proposed Rulemaking, *Revisions to Reliability Standard for Transmission Vegetation Management*, 141 FERC ¶ 61,046, at ¶ 38 (2012). The Commission published the study and the proposed standard for public comment. Only then did the Commission adopt a modified version of the standard, *see* Final Rule, *Revisions to Reliability Standard for Transmission Vegetation Management*, 142 FERC ¶ 61,208 (2013), and the Commission required NERC to develop still more "empirical data regarding the flashover distances between conductors and vegetation." *Id.* at ¶ 59. It thus has adopted and refined standards for vegetation management policies only after retaining subject-matter experts, publishing an extensive study and soliciting public comment. *Id.*

species. 16 U.S.C. § 1538. Implementing regulations clarify that disrupting such wildlife's normal breeding, feeding or sheltering patterns is prohibited. 50 C.F.R. § 17.3(c). Similar restrictions exist under the California Endangered Species Act and numerous other provisions of the California Fish & Game Code. *See, e.g.*, Cal. Fish & Game Code §§ 2080 *et seq*. (prohibiting taking threatened or endangered species without a permit); *id.* §§ 3503, 3503.5 (prohibiting taking or destruction of nest or eggs of any bird without a permit). In its normal operations, PG&E mitigates the risk of disruption by, whenever possible, scheduling tree work within breeding grounds of endangered species outside of peak breeding season, carefully inspecting trees before removing them and working with biologists to develop plans to minimize potential harms once discovered. The Proposed Modifications would prevent PG&E from using those strategies. Many endangered bird species' peak breeding season begins in February or March and continues for months. To meet the Court's June 21, 2019 deadline (even if it were possible), PG&E would be required to conduct substantially all required tree work during these bird species' peak breeding season in violation of state and federal regulations.[8] (*See* Order at 2.)

The Proposed Modifications also appear not to contemplate the impact that compliance would have on California citizens' ability to afford electricity. Existing regulations specify precise clearances that utilities must maintain between their overhead electric facilities and surrounding vegetation. Policymakers chose those clearances in part because increases in the required clearance cause decreasing

[8] Many municipalities have also adopted heritage tree ordinances that prohibit the removal of specified tree species or require a permit. *See, e.g.*, Berkeley City Ordinance 6.52.010 (prohibiting the removal of Coastal Live Oak trees of a designated size); Santa Rosa City Ordinance 17-24.020(L)(2), 17-24.030; *see also* Todd S. Purdum, *The (Almost) Untouchables of California*, N.Y. Times (Aug. 29, 2001), https://nyti.ms/2SZy2Vh. Although these local land use restrictions do not apply to CPUC-regulated work by investor-owned utilities, private citizens nonetheless routinely protest when PG&E conducts tree work, regardless of its legal obligations. *See, e.g.*, Davis Harper, *Homeowners Still Concerned with PG&E Tree Removals*, Calaveras Enterprise (Oct. 17, 2018), https://bit.ly/2RuipZs; Tony Bizjak, *Is PG&E Going Too Far in Cutting Trees for Fire Safety? A Sacramento Group Says Yes*, The Sacramento Bee (Oct. 3, 2018), https://bit.ly/2ARHYJs. Many customers refuse PG&E and its contractors entry to their property, and some protesters have climbed into trees to prevent tree crews from completing required work. PG&E has experience with customers who are so angry about the tree work that they confront crews with firearms. And of course, local opposition can sometimes result in complex and time-consuming litigation. *See, e.g., Sarale v. Pac. Gas & Elec. Co.*, 117 Cal. Rptr. 3d 24 (Ct. App. 2010) (litigation regarding extent of trimming underneath powerlines); *Save Lafayette Trees v. Lafayette*, 239 Cal. Rptr. 3d 222 (Ct. App. 2018) (litigation regarding tree removal near natural gas pipelines).

marginal risk reductions, and, in their judgment, the additional risk reduction did not justify the increased hardship on customers who must pay higher rates. The Proposed Modifications, on the other hand, appear to discount or disregard diminishing marginal risk reductions and instead require PG&E to remove any tree or branch that might, under high wind conditions, contact powerlines (even in areas that do not present high fire risk).

Finally, given the breadth of the Proposed Modifications and the significant likelihood that many of the affected trees and branches would be located on private property, the Proposed Modifications would require PG&E to trespass on private property to trim or remove those trees or branches. This could cause PG&E to violate, and has significant implications for, private landowner rights. The California State Legislature recently amended its Public Resources Code to permit owners and operators of electrical transmission and distribution lines to enter private property to inspect their lines and prune trees that encroach within the clearances prescribed by state law or that are otherwise hazardous. Cal. Pub. Res. Code § 4295.5.[9] Section 4295.5, however, does not permit utilities to enter private property to prune trees that are outside the prescribed clearances, nor does the definition of hazardous tree encompass any tree or branch that has the ability to contact PG&E powerlines in high-wind events. Further, the statute requires that landowners be provided with notice and an opportunity to be heard before their trees are pruned. *Id.*

These regulations are only a sample of the federal and state laws under which PG&E operates. In addition to those regulations, and as described above, the California State Legislature and the CPUC have enacted a complex and comprehensive scheme of regulations with a purposeful focus on the distance that must be maintained between vegetation and electric equipment and that identify the circumstances in which trees must be removed. Cal. Pub. Res. Code §§ 4292, 4293; CPUC General Order 95 Rule 35. In response to the growing threat of climate change and the increased number and severity of wildfires in recent years, the CPUC has enacted further regulations specifically aimed at reducing the risk of wildfires, including increased clearances between vegetation and powerlines located in Tier 2 and Tier 3

[9] Section 4295.5 became effective on January 1, 2019 and therefore has not been judicially tested. *Id.*

of its 2018 Fire-Threat Map. Each regulation reflects an issue important to the electorate, including, to be sure, safety, but also reliability and affordability of electricity, as well as environmental conservation. The Proposed Modifications fail to account for these values and the politically determined balance among them.

**b. PG&E Has Developed Extensive Processes Designed to Ensure Regulatory Compliance and Mitigate Wildfire Risk.**

In complying with the existing regulatory scheme developed over the course of years based upon the input of various public stakeholders, PG&E has developed a comprehensive, multi-pronged vegetation management program designed to:

- proactively conduct tree work that reduces the likelihood of tree failure that could impact electric facilities and pose a public safety risk;
- comply with state and federal regulation regarding minimum vegetation clearance requirements for both the electric transmission and distribution overhead systems;
- perform annual inspections (and in higher fire risk areas, more-frequent-than-annual inspections) to maintain required vegetation clearances and abate potentially hazardous trees;
- maintain vegetation-line clearances and radial clearances around poles pursuant to Cal. Pub. Res. Code §§ 4292 and 4293 and General Order 95 Rule 35, Case 14, including creating a radial clearing of 12 feet or more recommended at the time of trim for lines in Tier 2 and Tier 3 HFTD areas to maintain year-round compliance;
- address risks associated with the drought and tree mortality emergency declarations and resultant directives; and
- address fire risk reduction and enhance defensible space by conducting targeted fuel management under and adjacent to PG&E facilities.

Approximately 3,500 employees and contractors, including experts educated and trained in arboriculture, perform annual inspection activities on behalf of PG&E's Vegetation Management Department, involving approximately 70,000 square miles of service area, 81,000 miles of overhead distribution powerlines, and 18,000 miles of overhead transmission powerlines. To further reduce the risk of vegetation contacting powerlines, and to identify and abate dead or dying trees, inspections are performed at least twice a year and as often as four times a year in certain locations.

PG&E's routine vegetation management and vegetation control programs can be categorized roughly into five groups (1) Routine Distribution Line Maintenance Program; (2) Transmission Line Vegetation Maintenance Program; (3) Drought and Tree Mortality Response Program; (4) Enhanced Electric Vegetation Management ("EEVM") Program; and (5) Pole Clearing.

**i. Routine Distribution Line Maintenance Program.**

Every line mile of PG&E's approximately 81,000 miles of overhead distribution lines is patrolled at least once each year. Pre-inspectors patrol the lines and look for trees that may grow too close to powerlines, or trees that are dead, dying, diseased, or have signs of defects observable from a pre-inspector's vantage point. As part of its routine program, PG&E conducts tree work—mostly pruning, but often removal—on more than 1,000,000 trees each year.

PG&E also has developed additional programs so that certain sections of PG&E's distribution lines are patrolled more than once each year. These programs include PG&E's Drought and Tree Mortality Response Program (also known as the Catastrophic Event Memorandum Account ("CEMA") Program), discussed below, in which pre-inspectors conduct additional ground and aerial patrols of PG&E's powerlines in high fire-threat areas. These additional patrols provide a second, third, and sometimes fourth inspection of approximately 50 percent of PG&E's overhead distribution lines each year.

**ii. Transmission Line Vegetation Maintenance Program.**

Federal standards require utilities to completely prevent encroachments from vegetation located within and adjacent to the right of way. As a result, PG&E has cleared its NERC-regulated rights of way

to the full width of the easement and is in the process of clearing a wider swath both under and alongside its lower voltage transmission lines. The effect is that clearances between transmission lines and nearby vegetation are typically greater than clearances between distribution lines and nearby vegetation. As part of PG&E's Transmission Line Vegetation Maintenance Program, PG&E patrols every line mile of its approximately 18,000 miles of overhead transmission lines each year. Inspection is conducted using LiDAR technology to identify spans where there are trees with the potential to contact the transmission lines if they should fail and a subsequent ground inspection is conducted to assess the health of the identified trees to determine if additional action including removal is necessary. As a means to limit or prevent tall vegetation from growing near its transmission lines, PG&E also uses Integrated Vegetation Management ("IVM") techniques, such as chemical treatments and removals, to encourage the growth of preferred species less likely to contact transmission lines.

**iii. Drought and Tree Mortality Response Program ("CEMA" Program).**

In 2014, then-Governor Brown declared a state of emergency due to California's severe drought and associated unprecedented tree mortality. By December 2017, the USFS and CAL FIRE announced that a record-breaking 129 million trees on 8.9 million acres had died due to drought and bark beetles in California from 2010 to 2017. *Record 129 Million Trees in California*, U.S. Department of Agriculture and CAL FIRE, https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd566303. The USFS estimated that in 2016 alone, 62 million trees died—a 100% increase in dead trees in California since 2015. *U.S. Forest Service & CAL FIRE, News Release, Record 129 Million Dead Trees in California (Dec. 12, 2017), available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd566303.pdf* . As an emergency measure to mitigate the effects of the drought and further reduce the likelihood of fire ignition associated with its facilities, PG&E began its Drought and Tree Mortality Response Program ("CEMA Program") in 2014. The program includes, among other things, increased inspections and vegetation removal in high fire threat areas, cooperating with California agencies and organizations to increase protective measures to decrease fire response times (*e.g.*, scheduling aircraft flights to provide early detection of fires), clearing access roads, and reducing fire fuels.

Through the CEMA Program, PG&E removed more than 400,000 dead and dying trees that were identified between 2014 and 2017, in addition to the trees PG&E removed as part of its routine distribution and transmission line maintenance. In 2017 alone, PG&E removed an additional approximately 156,000 dead or dying trees, and in 2018, it removed an additional approximately 120,000 dead or dying trees.

**iv. Public Safety & Reliability Program.**

For over 10 years, PG&E has performed additional foot patrols and tree work on its distribution lines as part of what was initially called the Public Safety & Reliability ("PS&R") Program. The patrols are designed to focus on areas that have a higher rate of vegetation-caused outages and vegetation-caused wires down. By focusing on areas with a higher rate of vegetation-caused outages, the PS&R patrols are designed to further reduce the risk of wildfires. As part of this program, in 2017, more than 26,000 additional trees were either pruned or removed, and in 2018, more than 17,000 additional trees were either pruned or removed.

**v. Pole Clearing.**

California Public Resource Code Section 4292 requires that all utilities maintain at least 10 feet of clearance at ground level around each of their utility poles by removing all flammable materials, including dead or dry vegetation from the circumference of any pole in a State Responsibility Area ("SRA") that has equipment that may generate electrical arcs, sparks or hot material during normal operation ("non-exempt equipment"). PG&E's pole clearing program, also referred to as the vegetation control ("VC") program, is designed to maintain this clearance around approximately 120,000 non-exempt poles each year. During VC patrols, pre-inspectors visit poles with non-exempt equipment attached and look for surrounding vegetation. Clearance work may include physically removing vegetation or application of herbicide, where necessary.

**c. PG&E Has Expanded its Wildfire Mitigation Efforts Since October 2017.**

In addition to PG&E's routine vegetation management programs, PG&E has begun performing additional vegetation management work to address the increasing threat of wildfire in Tier 2 and Tier 3

HFTD areas. These Enhanced Vegetation Management ("EVM") programs focus on further reducing wildfire ignitions associated with PG&E's overhead electric facilities in HFTDs by targeting the highest risk drivers for wildfire. The programs that PG&E has implemented thus far as part of its EVM work are discussed below and include (1) Overhang Clearing; (2) Targeted Tree Species Work; and (3) Targeted "Ground to Conductor" Vegetative Fuel Reduction Work. As described below, while not part of the EVM program, PG&E is also working to install additional spans of insulated conductor, or "tree wire," to further reduce the risk of wildfires.

**i. Overhang Clearing.**

Beginning in 2018, PG&E began implementing programs to clear overhanging vegetation from directly above and around distribution lines in Tier 2 and Tier 3 HFTD areas to further mitigate the possibility of wildfire ignitions and/or downed wires due to vegetation-conductor contact. For 2019 and beyond, the planned scope of this program is to remove branches that directly overhang or are in the area within four horizontal feet of electric distribution lines. Due to the amount of work that is to be performed, PG&E plans to complete this work over the course of an eight-year period based upon an analysis of available qualified personnel and the time necessary given access and permitting requirements. Given the scope of the work requirement and the time it is estimated to take, PG&E has developed and deployed a risk-based prioritization model to schedule this work that considers factors including: (a) the likelihood of ignition (based on a regression analysis predicting ignitions by circuit); (b) the likelihood of fire spread; (c) the potential impacts of a wildfire in a particular area; and (d) the difficulty of ingress and egress from potentially impacted communities. For 2019, PG&E is targeting approximately 2,400 circuit miles, with an increasing pace over time. In addition to the initial overhang clearing work, PG&E intends to perform follow-up vegetation maintenance work on the sections of line previously cleared of overhangs, to keep branches above powerline height from growing back into an overhanging position.

**ii. Targeted Tree Species Work.**

PG&E conducts site visits of vegetation-caused wires-down events as part of its standard

vegetation-caused service interruption investigation process. Some of this data helps inform failure patterns by particular tree species that are associated with wires-down events, which further helps PG&E conduct targeted tree species work. To date, PG&E has identified ten tree species that were responsible for approximately 75 percent of vegetation-related fire ignitions in Tier 2 and Tier 3 HFTD areas between 2013 and March 2018. As part of the EVM program, PG&E is working with property owners to support the removal or trimming of trees from these 10 species that are tall enough to contact distribution lines, have a clear path to contact the lines and exhibit potential identified risk factors. This work focuses on trees that are more than four feet from powerlines (*i.e.*, not within the scope of the overhang clearing program), and is intended to include some taller trees located dozens of feet from powerlines.[10] PG&E plans to address the initial assessment and treatment of high risk tree species on all distribution overhead circuits in Tier 2 and Tier 3 HFTD areas over an eight-year period, beginning in late 2018.

**iii. Targeted "Ground to Conductor" Vegetative Fuel Reduction Work.**

In 2018, PG&E began a Fuel Reduction Program to reduce vegetative fuels under, and up to 15 feet on either side of, powerlines located within Tier 2 and Tier 3 HFTD areas. In 2018, PG&E completed this work on several thousand properties on approximately 150 distribution-line miles with the acknowledgment of the affected property owners. For 2019 and beyond, PG&E intends to work with property owners to perform this work in Tier 2 and Tier 3 HFTD areas where property owners support the work and wildfire risk reduction benefits can be created. The miles of line to be cleared through this effort will depend on various factors including vegetation density, topography, access and environmental limitations.

**iv. Installation of Insulated Conductor.**

In addition to conducting tree work to maintain required clearances and prevent contact between vegetation, PG&E also installs insulated powerlines, or "tree wire," which can reduce the risk of a fire or outage when contact does occur. Traditionally, PG&E targeted its installation of tree wire to locations in

[10] This program encompasses living trees only. PG&E will continue to remove dead and dying trees that have the potential to contact its lines as part of the CEMA Program.

which there had been multiple outages caused by contact with vegetation, and where trimming or removal was impossible or ineffective. In response to extreme weather and associated increases in wildfire risk, PG&E has changed its protocol with respect to the installation of tree wire in Tier 2 and Tier 3 HFTD areas. New construction in these HFTD areas will include tree wire rather than bare conductors, and stronger, more resilient wood poles (and in certain cases non-wood poles) will be installed to support their heavier weight.[11] Additionally, PG&E plans to harden its electric distribution system by proactively installing tree wire, undergrounding or eliminating up to 150 circuit miles of powerlines in high fire-threat areas in 2019, and it will continue this effort in subsequent years. However, installation of tree wire can mitigate but cannot eliminate potential wildfire risk, as there remains a threat that a tree can fall into a line and still cause a fault regardless of the powerline's insulation.

### 3. The Court's Proposed Modifications Concerning Equipment Inspections and Maintenance Would Interfere With Existing Regulations.

The Court's Proposed Modifications concerning equipment maintenance and inspection would also conflict with a carefully calibrated regulatory scheme developed by Congress, the California legislature, multiple regulators and stakeholders. In performing inspections and maintenance of the many thousands of distribution and transmission line miles in their networks, California utilities must draw on a finite number of qualified personnel and are limited by the rates that can be sustainably charged to their customers. In addition, the extent, invasiveness and frequency of maintenance work is constrained by the imperative—enforced by multiple regulators—to supply reliable power to the millions of people across the state who depend on the utilities' transmission and distribution networks. To enable utilities to meet the complex challenge of sustainably supplying reliable and safe power to millions of consumers, state and federal regulators have developed inspection and maintenance standards that are designed to balance a variety of considerations, including the reliability of the electric grid, public safety, affordability of

[11] To account for the added weight of the wire, wooden poles often must be replaced with poles made of stronger materials.

energy, and the availability of trained inspection and maintenance personnel.

Since at least 1996, the CPUC has been working to fulfill its statutory mandate to set inspection and maintenance standards that reflect considered tradeoffs among public safety, reliability and affordability, among other factors. Section 364 of the California Public Utilities Code directs the CPUC to "adopt inspection, maintenance, repair, and replacement standards." Such standards must be "prescriptive or performance based, or both, and may be based on risk management, as appropriate, for each substantial type of distribution equipment or facility, [and] shall provide for high-quality, safe, and reliable service." The California Public Utilities Code further specifies that "[i]n setting its standards or rules, the commission shall consider: cost, local geography and weather, applicable codes, potential physical security risks, national electric industry practices, sound engineering judgment, and experience." Cal. Pub. Util. Code § 364(b).

In 1996, the CPUC proposed prescriptive standards for distribution inspection cycles that took into account relevant factors identified by the California legislature, including "cost, local geography and weather, applicable codes, national electric industry practices, sound engineering judgement, and experience." *Id*. Having considered these factors, the CPUC determined that "utilities be required to undertake detailed inspections of major distribution overhead facilities every five years." CPUC Decision No. 96-11-021 (Nov. 6, 1996), *available at* http://docs.cpuc.ca.gov/PublishedDocs/-PUBLISHED/FINAL_DECISION/14743.htm. As to maintenance, repair and replacement standards, the CPUC's investigation "reveal[ed] no prescriptive standard that can be readily acknowledged as sound industry practice and would adequately balance these other criteria."[12] *Id.*

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[12] Since 1996, the CPUC has continued to refine regulatory standards governing inspection and maintenance of utility equipment, including by enhancing those standards to counter the growing threat of wildfires in California. On August 25, 2009, the CPUC approved certain changes to General Order 95 ("GO 95") for the express purpose of "reduc[ing] fire hazards in California before the start of the 2009 fall fire season." CPUC Decision No. 09-08-029 (Aug. 25, 2009), at 2, *available at* http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/106128.doc. One such change was the addition of Rule 18, which required utilities to establish auditable maintenance programs, notification procedures for safety hazards, and methods to prioritize corrective actions for GO 95 violations, including based on "[w]hether the safety hazard or violation is located in an Extreme or Very High Fire Threat zone." *Id.* at 17. In January 2012, the CPUC again amended GO 95, Rule 18 to require utilities to accelerate correction of Priority Level 2 nonconformances with GO 95 in Southern California's Extreme or Very High Fire Threat Zones. CPUC Decision No. 12-01-032 (Jan. 12, 2012), at 2, *available at*

Similar regulatory trade-offs are reflected in existing inspection and maintenance standards for transmission networks. Section 348 of the Public Utilities Code directs the California Independent System Operator ("CAISO") to "adopt inspection, maintenance, repair, and replacement standards for the transmission facilities under its control", and further requires the CAISO to consider "cost, local geography and weather, applicable codes, national electric industry practices, sound engineering judgment, and experience" in setting such standards. In the same vein, Western Electricity Coordinating Council ("WECC") Standard PRC-STD-005-1 on transmission maintenance acknowledges that inspection and maintenance standards should "tak[e] into consideration diverse environmental and climatic conditions, terrain, equipment, maintenance philosophies, and design practices."[13]

PG&E respectfully submits that the Court should defer to these and other regulatory judgments

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http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/157605.PDF. In December 2017, the CPUC amended GO 95, Rule 18 to require utilities, by June 30, 2019, to prioritize correction of safety hazards based, in part, on whether such hazards are located in *any* HFTD area in California, and to accelerate correction of Priority Level 2 nonconformances with GO 95 that create fire risks in Tier 2 and Tier 3 HFTDs located in *any* part of the state. CPUC Decision No. 17-12-024 (Dec. 14, 2017), at 2-3, 131-132, *available at* http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M200/K976/200976667.PDF. Most recently, pursuant to a Settlement Agreement approved by the CPUC in June 2018, the CPUC adopted further changes to Rule 18 that will come into effect on June 30, 2019, including a rule under which the CPUC may direct utilities to correct GO 95 violations sooner than the maximum time allowed by Rule 18. CPUC Decision No. 18-05-042 (May 31, 2018), at 2, 40, *available at* http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M215/K830/215830213.PDF.

[13] In addition, the CPUC and the CAISO play an important accountability and oversight function for which the Court's Proposed Modifications do not account. The CPUC requires large utilities in its jurisdiction to file a Risk Assessment Management Phase ("RAMP") Report ahead of their GRCs. In the filing, PG&E is required to describe its plans for assessing, mitigating and minimizing risks. The Safety and Enforcement Division ("SED") of the CPUC evaluates PG&E's RAMP filings and the risk mitigation proposals it describes. Similarly, the California Public Utilities Code requires transmission facility owners under the CAISO's operational control to issue annual, publicly available reports on their compliance with transmission inspection and maintenance standards. Cal. Pub. Util. Code § 348. Furthermore, utilities under the CAISO operational control are required to submit their inspection and maintenance plan to the CAISO, which conducts annual maintenance reviews to verify that each transmission owner is adhering to that plan. Amended and Restated Transmission Control Agreement Among the California Independent System Operator Corporation and Transmission Owners, at Appendix C § 6.2, *available at* https://www.caiso.com/Documents/TransmissionControlAgreement.pdf. At the CAISO's discretion, these annual reviews may—and typically do—involve site visits to verify compliance. *Id.* at Appendix C § 6.3. In short, PG&E is regularly called to account for its inspection and maintenance standards and risk mitigation practices.

about equipment inspection and maintenance. The Court's Proposed Modifications appear to be unsupported by "[e]mpirical data" of the kind that the CPUC has emphasized "is needed to draw conclusions about the appropriate balance of costs and benefits for various prescriptive maintenance, repair, or replacement standards." CPUC Decision 96-11-021, *available at* http://docs.cpuc.ca.gov/PublishedDocs/PUBLISHED/ FINAL_DECISION/14743.htm.

The below section describes PG&E's baseline inspection and maintenance practices—all of which were designed to comply with state, federal, and CAISO regulations—and details the enhanced inspection and maintenance program that PG&E has implemented in response to the growing threat of wildfires exacerbated by climate change and development.

**a. PG&E's Implementation of Inspection and Maintenance Requirements: Distribution and Transmission Facilities.**

As required by CPUC, FERC and CAISO regulations, PG&E has adopted a series of procedures focused on the identification, assessment, prioritization, and documentation of abnormal conditions, regulatory conditions, and third-party caused infractions that negatively impact safety or reliability on its distribution and transmission facilities.

PG&E's facility inspection procedures call for the following:

<u>Patrols.</u> Simple, visual examinations of applicable overhead and underground facilities to identify obvious structural problems and hazards. A patrol of overhead lines may be performed by walking, driving, or helicopter. Distribution patrols must be performed annually in urban areas, and every other year in rural areas, unless the area has been inspected in that year. All transmission line facilities are patrolled annually, but a detailed inspection (described below) may supplant an annual patrol if performed that year.

<u>Inspections.</u> Careful examination of individual components, structures and equipment through visual observation, and/or routine diagnostic tests in order to identify abnormal conditions that adversely impact safety or reliability. PG&E performs inspections of distribution lines every five years. For transmission facilities, detailed inspection

frequencies vary depending on voltage, structure type (wood or steel), and foundation location relative to Bay waters.

Infrared inspections. An infrared ("IR") inspection is a diagnostic test using IR thermography to identify abnormal conditions. These IR cameras can detect and record the heat being radiated in their field of view, allowing for determinations of the location of the hottest spot on the target being observed. Infrared inspections are performed annually on transmission facilities in the Tier 2 and Tier 3 HFTD areas as part of summer readiness and every five years for all transmission assets.

Non-routine patrols. Non-routine patrols are patrols in response to certain conditions that require follow-up inspection and/or maintenance of facilities at a frequency different than the intervals determined by line prioritization or condition assessment.

Field Assessment. Field assessments are designed to identify compelling abnormal conditions and/or regulatory conditions that pose a safety or reliability risk or hazard and require action. Field Assessments are either preventive (*e.g.*, preventive patrols and inspections) or corrective (*e.g.*, reporting compelling abnormal conditions, regulatory conditions, and third-party-caused infractions).

Outage Review Team Patrols. PG&E's Outage Review Team ("ORT") is responsible for reviewing outages to identify the outage's cause and implement corrective actions that could prevent future outages or shorten outage duration or scope.

During inspections and patrols, inspectors are asked to evaluate the condition of facilities at each location. The inspector's primary responsibility in an overhead electric facility inspection or patrol is to examine and record the specific condition of the facilities. This requires a detailed evaluation (*e.g.*, visual observation, and potentially, use of measuring devices, tools, or routine diagnostic tests) to determine if there are any structural problems or hazards that will adversely impact safety, service reliability, or asset life (collectively, "abnormal conditions"), and to evaluate when each abnormal condition identified warrants corrective action. If an abnormal condition is identified, the inspector is

required to determine the severity of the condition, the risk factors, the appropriate priority level, and a reasonable time frame to plan, design and complete any required corrective work.[14]

In addition, the inspector must consider certain risk factors and conditions encountered in the field when recommending priority/repair codes, including the risk of exposure to the public, workers, or employees; the abnormality encountered; risks if the condition continues to deteriorate; likelihood of facility failure; and impact of the failure to system reliability, customers and service, and/or the potential for injury.

**b. PG&E's Enhanced Risk-Based Inspection and Maintenance Practices.**

Following the 2018 wildfires, PG&E has developed an enhanced inspection program, known as the Wildfire Safety Inspection Program ("WSIP") based on an evaluation of key failure modes of transmission and distribution assets in Tier 2 and Tier 3 HFTDs and nearby areas. Under the WSIP program, PG&E is accelerating its inspections of transmission, distribution and substation assets in Tier 2 and Tier 3 HFTD areas. These accelerated inspections focus on conditions that could lead to potential fire ignitions and supplement PG&E's baseline inspection and maintenance procedures, described above. Under the plan, PG&E performs detailed ground inspections and climbing inspections (for towers) that focus on failure points capable of visual inspection as well as secondary inspections using drones for all transmission assets and for distribution assets that are not accessible by ground. The inspections are followed by quality audits designed to ensure the proper identification and prioritization of any necessary repair work. In addition, Tier 2 and Tier 3 HFTD area inspections will identify sag and clearance issues for correction through re-sagging or the installation of spreader brackets, as well as any other conditions that could lead to line slap in areas susceptible to fire.

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[14] The Proposed Modifications reference rebuilding that the Court would require to prevent lines from "slapping" together. However, because line sag is necessary for structurally sound construction, the CPUC requires a minimum amount of sag for all powerlines. GO 95, Appendix C. Line sag is necessary because pulling the lines too tautly can result in greater tension loads than the poles can bear. One specific issue for which inspectors are asked to look is excessive or irregular sagging in conductors because such a condition could increase the risk of line-slapping. Irregular line sag and sag differentials may be the product of third-party actions (*e.g.*, a car hitting a pole), natural events or gradual weathering of PG&E equipment (*e.g.*, poles drying and twisting over time).

With respect to distribution facilities, PG&E will inspect approximately 685,000 poles across approximately 25,000 of distribution line in Tier 2 and Tier 3 HFTD areas with a specific focus on the failure mechanisms for transformers, conductors, connectors, insulators, fuses, switches, structures, third-party attachments, splices and tree-connected equipment that can potentially initiate fires. Additionally, PG&E will investigate the effectiveness of drone inspections for identifying abnormal pole-top conditions as part of this process. PG&E plans to complete enhanced inspections of the approximately 685,000 distribution poles in Tier 2 and Tier 3 HFTD areas (as well as nearby structures with close proximity and high risk of fire spread into the adjacent Tier 2 and Tier 3 HFTDs) by the end of May 2019, and to complete corrective actions of priority findings shortly thereafter.

With respect to transmission facilities, PG&E is inspecting more than 50,000 structures (poles and towers) across approximately 5,500 miles of transmission line in Tier 2 and Tier 3 HFTD areas (as well as nearby structures with close proximity and high risk of fire spread into the adjacent Tier 2 and Tier 3 HFTDs), with a specific focus on the failure mechanisms for conductors, connectors, insulators, and structures that can potentially initiate fires. The visual inspections include ground inspection of transmission poles and ground and climbing inspection of transmission towers. Aerial inspections will complement and further enhance the ground and climbing visual inspections and use helicopters and drones, where feasible, to gather information of the structures, such as the top of the tower or the ends of the tower arms. PG&E plans to complete the inspections of transmission poles and towers in Tier 2 and Tier 3 HFTD areas by March 2019, and to complete corrective actions of priority findings shortly thereafter.[15]

PG&E's approach to identifying the transmission lines that will be subject to the WSIP is an example of a risk-based methodology for mitigating the potential for another catastrophic wildfire, and is similar to the approach that PG&E also used to develop the Enhanced Vegetation Management work described above. In identifying the transmission lines that would be subject to the WSIP, PG&E

[15] The above schedules could be affected by resource availability, access limitations, and outage scheduling limitations. The timing of any potential corrective actions will depend on the nature of the work.

considered four main factors.

*First*, PG&E considered the likelihood of each transmission line causing an ignition, as determined by a regression analysis predicting ignitions at the circuit level. In conducting that regression analysis, PG&E considered factors such as the number of exposed assets, modes of asset failure, asset condition (based on the number of corrective notifications) and historical incidents (as measured by the number of outages and ignitions). PG&E also considered the likelihood of distribution and substation equipment causing an ignition by review of historical ignitions and failure modes.

*Second*, PG&E considered likelihood of spread, as determined by a study conducted by PG&E and Reax Engineering. That fire spread analysis took into account fuel type and density (*e.g.*, grass versus brush), topography (including the presence of slopes and natural firebreaks), weather and wind, and distance from fire stations and air suppression bases (as a measure of suppression speed).

*Third*, PG&E considered the consequences of an ignition and the potential impacts of a wildfire. The consequences considered were population density, structure density and potential negative impacts on natural resources.

*Fourth*, PG&E analyzed the difficulty to access or evacuate communities in the event of a wildfire. That analysis was based on population density and the potential number and types of access roads available for each community. PG&E then factored in additional operational constraints that could impact the ability to perform the work, including the environment, safety, planned projects, geographic access, weather, government relations and customer considerations.

* * *

In sum, and as stated at the outset, PG&E shares the Court's concern that it needs to continue to do more to prevent catastrophic wildfires as a result of the experiences of the past two years and continued climate change. There is, however, already a complex regulatory scheme in place that has policies and processes designed to ensure that all competing legal, environmental and fiscal issues are taken into consideration. PG&E has developed protocols that comply with the applicable standards and is working proactively to expand beyond regulatory requirements by deploying risk-based approaches to

prioritize mitigation efforts without causing additional safety or legal issues. PG&E respectfully submits that the Court should not use probation conditions to improperly supplant the regulatory processes governing areas that have explicitly been delegated primarily to state control.

**II.Compliance With the Court's Proposed Modifications Is Technically and Operationally Infeasible.**

Even assuming the Proposed Modifications were legal and advisable, there is another significant reason not to adopt them: the work that would be required is so labor-intensive and costly that compliance is technically and operationally infeasible.

If the Court were to adopt just the vegetation management modifications, PG&E would be required within less than five months to remove or trim trees and branches that could bend, break or fall into powerlines, poles or electric equipment in high-wind conditions. Based on an analysis of light detection and ranging ("LiDAR") data of a statistical sample of its 70,000 square-mile service territory, PG&E estimates that more than 100 million trees have the potential to grow or fall into overhead powerlines. To reduce to zero the risk that any of those trees contact electrical equipment, PG&E would have to remove all of them, and that does not include the innumerable branches from trees further away from powerlines that also may potentially fall within the scope of the Proposed Modifications. The scale of such a program would be unprecedented, and its costs are thus difficult to project. Assuming an average cost of $1,250 per tree, it would cost more than $100 billion to remove more than 100 million trees, and to do so before June 21, 2019, would require (assuming 1.25 trees are removed per full-time worker per day during a six-day work week), the labor of more than 650,000 full-time employees. PG&E does not believe that it could assemble a workforce of such magnitude, as it does not believe that there are enough qualified tree trimmers and pruners available in the hiring market. Nor is hiring untrained employees an option: tree trimming and pruning is a dangerous job, and hiring even a few thousand more employees would require relaxing union requirements and reducing liability requirements.

These are conservative estimates. After removing the more than 100 million identified trees, in

high wind conditions there could still be some risk of contact between the trees that remain and the electric facilities. The removal of trees may expose others, and extreme winds can cause even healthy limbs to fail. Reducing the risk to zero would require clear-cutting on an unprecedented scale. Yet this is what the Proposed Modifications appear to require. The Proposed Modifications make no allowance for a balancing of risk and cost—they require the removal of every tree or branch that "could" contact electric equipment. Every removal that reduces risk must be performed, even if the cost is overwhelming and the risk reduced is negligible.

Simply put, the resources required to comply with the Proposed Modifications do not exist. PG&E does not have the necessary funds. Were PG&E allowed to pass on the costs, the rate increases would be oppressive. The qualified labor shortage is even more problematic. PG&E does not have, nor does it believe it could find, the qualified personnel necessary to complete the proposed work.

## III. The Proposed Conditions are Impermissible Because They Are Not Reasonably Related to the Underlying Conviction or Relevant Sentencing Factors.

As set forth in the preceding sections, PG&E respectfully submits that the Proposed Modifications interfere with existing regulatory schemes, thereby creating significant risks of unintended consequences. The Proposed Modifications are also infeasible. There is one additional reason why the Proposed Modifications should not be entered, and that is because they are not reasonably related to the underlying conviction or relevant sentencing factors. While PG&E submits that no probation modifications are reasonably necessary, it welcomes the opportunity to provide the Court with further information about the efforts that are underway, as described above, to mitigate wildfire risk and would have no objection to increased reporting on those efforts to both the Monitor and the Court.

### A. The Proposed Modifications Are Not Reasonably Related to the Underlying Conviction Or The Goals Of Punishment.

The core requirement of a lawful sentence is that it be "sufficient, but not greater than necessary" to punish the defendant for the underlying conviction. 18 U.S.C. § 3553(a). Accordingly, a district court's power to modify probation extends only to conditions that are "reasonably related" to the offense

of conviction, to the "history and characteristics of the defendant," and to the statutorily enumerated purposes of sentencing. §§ 3553(a)(1)-(2); 3563(b)-(c). As the Ninth Circuit has explained, a discretionary condition of probation "must involve only such deprivations of liberty or property as are *reasonably necessary* to accomplish the purposes of sentencing. If a condition of probation does not meet these requirements, it is invalid." *United States v. Lorenzini*, 71 F.3d 1489, 1492 (9th Cir. 1995) (emphasis added) (citation omitted); *see also Higdon v. United States*, 627 F.2d 893, 897 (9th Cir. 1980) ("If the impact is substantially greater than is necessary to carry out the purposes [of sentencing], the conditions are impermissible."). In other words, a probation condition must not only have some articulable connection to the conviction and goals of punishment, but also must be reasonably related and reasonably necessary to achieve those goals.

PG&E was convicted of obstructing an NTSB investigation and of five violations of the federal Pipeline Safety Act concerning data gathering and integration and integrity management concerning natural gas transmission pipelines. *See United States v. Pac. Gas & Elec. Co.*, No. 14-cr-175 (N.D. Cal. Jan. 31, 2017). Those convictions concerned PG&E's natural gas transmission business. None of them involved any aspect of PG&E's electric grid operations. The Court has stated that the Proposed Modifications "are intended to reduce to zero the number of wildfires caused by PG&E in the 2019 Wildfire Season." (Order at 3, ECF No. 961.) But that goal—and the comprehensive restrictions and requirements the Court proposes to impose on the electrical business in an effort to achieve it—is not reasonably related to the conviction that gave rise to the probation in the first place. Rather than serve as "a substitute for the sentence," *Mitsubishi*, 677 F.2d at 788, the Proposed Modifications extend far beyond any issue presented in the underlying criminal case.

Moreover, as the Ninth Circuit has held, "if conditions are drawn so broadly that they unnecessarily restrict otherwise lawful activities, they are impermissible." *United States v. Terrigno*, 838 F.3d 371, 374 (9th Cir. 1988). As explained in more detail above, the proposed modifications would require PG&E to perform an infeasible task, pose significant environmental risks and supersede a complex web of federal and state regulatory prerogatives while requiring expansive de-energization.

PG&E's provision of electric service to millions of customers—including hospitals, nursing homes, schools, prisons, military bases, public transit systems, and other vital infrastructure—is not only lawful, it is essential.

Put simply, conditions of this kind do not satisfy Section 3553(a)'s fundamental requirement that a sentence not be "greater than necessary" to carry out the goals of punishment relative to the underlying conviction.

**B. The Proposed Modifications Are Not Reasonable Because the Record Shows That PG&E Has Consistently Communicated and Cooperated with the Probation Office and the Monitor.**

The Court entered its show cause order shortly after issuing a summons in which the Court found probable cause that PG&E had violated its probation obligation to inform the Probation Office of the Butte County criminal investigation into the Honey Fire. (Summons, ECF No. 960.) PG&E acknowledges that this Court need not find a violation of PG&E's probation in order to modify the terms of PG&E's probation (although such modifications must still satisfy the reasonableness requirements of Sections 3553 and 3563). But to the extent the Court views the Proposed Modifications as justified by PG&E's alleged failure to communicate regarding the Honey Fire in particular, or by a lack of communication with the Probation Office or Monitor more generally, the record does not support such allegations. Moreover, PG&E has worked steadily with its Monitor to remediate concerns with its safety and reporting practices, including with respect to PG&E's electric grid. These efforts further demonstrate that the Proposed Modifications, which would dramatically affect PG&E's electric grid operations, are not reasonably necessary under Section 3553.

1.<u>PG&E Informed The Probation Office Of The Honey Fire Investigation.</u>

The Probation Office contends that "there is probable cause to believe that Pacific Gas and Electric Company violated the conditions of their probation" for failure to report a criminal investigation, as evidenced by (1) CAL FIRE's conclusion that it deemed PG&E responsible for the Honey Fire, (2) a report from a certified arborist, (3) a criminal investigation by the Butte County District Attorney regarding the Honey Fire, and (4) a subsequent settlement by PG&E with Butte County regarding the

Honey Fire. (Summons at 2-4.)

The record shows, however, that PG&E promptly informed the Probation Office of the investigation and did not try to hide anything. Accordingly, the Court should not find a probation violation on this ground, nor conclude that the Honey Fire investigation otherwise justifies the imposition of the Proposed Modifications.

Specifically, PG&E informed the Probation Office of the Honey Fire investigation and potential criminal prosecution the same day CAL FIRE announced it, which was also the same day that PG&E became aware of those facts. In a press release issued May 25, 2018, CAL FIRE announced its findings regarding the cause of four of the October 2017 North Bay Wildfires, including the Honey Fire. Regarding that fire, CAL FIRE stated that it "determined the [Honey] fire was caused by an Oak branch contacting PG&E power lines" and that the "McCourtney, Lobo [and] Honey investigations have been referred to the appropriate county District Attorney's offices for review." CAL FIRE, "CAL FIRE Investigators Determine Cause of Four Wildfires in Butte and Nevada Counties," (May 25, 2018), https://calfire.ca.gov/communications/downloads/newsreleases/2018/2017_WildfireSiege-_Cause%20v2%20AB%20(002).pdf. PG&E emailed the Probation Office a link to that press release the day it was released. *See* E-mail from Julie Kane to Jennifer Hutchings (May 25, 2018) (attached hereto as Exhibit C).

PG&E again informed the Probation Office of the possibility of a Honey Fire investigation when it sent the Office a copy of the company's 8-K form on June 21, 2018, the same day the 8-K was released. *See* E-mail from Brandon Ridley to Jennifer Hutchings (June 21, 2018) (attached hereto as Exhibit D). The 8-K disclosed that PG&E "could be the subject of investigations or other actions by the county District Attorneys to whom CALFIRE has referred its investigations into the . . . Honey . . . fire[]." Pacific Gas And Electric Company, Current Report (Form 8-K) at 2, (June 21, 2018), https://www.sec.gov/Archives/edgar/data/75488/000119312518198514/d619252d8k.htm. PG&E reasonably believed that these two communications provided the Probation Office with the required notice of this matter. PG&E received no follow-up requests from the Probation Office after either of

these communications.[16]

PG&E also timely notified the Monitor of its $1.5 million settlement with Butte County on October 5, 2018, the day that settlement was announced. *See* E-mail from Alejandro Vallejo to Mark Filip and Christopher W. Keegan (Oct. 5, 2018) (attached hereto as Exhibit E). That settlement was covered by the media,[17] and PG&E further publicly disclosed the settlement in the company's 10-Q filed on November 5, 2018, noting that "[t]he Butte County District Attorney's office has entered into a settlement agreement with the Utility, resolving the Honey, Cherokee and LaPorte fire allegations without criminal or civil charges." Pacific Gas And Electric Company, Quarterly Report (Form 10-Q) at 36, (Nov. 5, 2018), https://www.sec.gov/Archives/edgar/data/75488/000100498018000015/pge-093018x10q.htm.

PG&E believed in good faith that these communications satisfied its obligations to give notice. To the extent the Court determines more robust communication with the Probation Office should have occurred, PG&E of course will follow whatever the Court or the Probation Office direct regarding the extent to which the Probation Office would like additional information from PG&E. But the record does not support a finding that PG&E violated its notification obligations, or otherwise support the imposition of the Proposed Modifications.

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[16] On December 7, 2018, the Probation Office contacted PG&E and requested PG&E resend emails previously provided to the Probation Office related to the Honey fire. In its response that same day, PG&E noted it had done an initial review for such contacts and provided to the Probation Office an email from October 5, 2018, to the Monitor, attaching the settlement with the Butte County District Attorney and the press release regarding the settlement. After the Probation Office's January 9, 2019 filing alleging a probation violation, PG&E further reviewed emails previously provided to the Probation Office and located the emails noted above that provided the Probation Office with the CAL FIRE press release related to the Honey fire, including CAL FIRE's referral of the investigation to the District Attorney, and the 8-k.

[17] *See e.g.*, Staff Reports, "Butte County DA, PG&E reach $1.5M settlement in October 2017 wildfires," *Chico Enterprise-Record* (Oct. 5, 2018), https://www.chicoer.com/2018/10/05/butte-county-da-pge-reach-1-5m-settlement-in-october-2017-wildfires/; Brian K Sullivan and Mark Chediak, "California Enters Peak Fire Season With Delaware-Sized Burn Scar," *Bloomberg* (Oct. 6, 2018), https://www.bloomberg.com/news/articles/2018-10-06/california-enters-peak-fire-season-with-delaware-sized-burn-scar.

2. PG&E Has Been in Consistent Contact with the Probation Office and Worked Closely with the Monitor.

More generally, PG&E has been in regular contact with the Probation Office and has worked closely with the Monitor to improve its operations. Over the course of its probation thus far, PG&E employees have exchanged over 150 emails with the Probation Office. Many of these emails relate to PG&E's community service obligations. PG&E also emailed the Probation Officer regarding various civil lawsuits against the company, investigations by other government bodies, and regulator interactions. PG&E employees have also made efforts to be available to the Probation Office to provide any information or assistance it requests.

PG&E's contact with the Monitor has been similarly proactive. PG&E has maintained regular, ongoing communication with the Monitor. One of the most frequent points of regular communication has been the weekly scheduled coordination calls, during which PG&E employees directly inform the Monitor team of any information concerning any government actions or investigations pending against PG&E. The Monitor also regularly participates in PG&E's daily gas operations calls. This is in addition to the numerous meetings that have been arranged as part of the Monitor's assessment work (discussed in greater detail below).

The Monitor's work has primarily focused on assessing PG&E's gas operations and gas transmission system, its corporate Compliance and Ethics program and safety at PG&E. As part of this work, over the last 20 months, PG&E has actively assisted the Monitor as the Monitor has:

attended hundreds of meetings at all levels of the Company, ranging from the Board of Directors and senior officer meeting to all-employee town halls, operational meetings and field visits;

periodically attended Board and Board Committee Meetings, including executive sessions with the Board;

traveled throughout PG&E's service territory to attend field projects such as equipment testing and inspection work, and conducted interviews and meetings with over 200 employees;

visited operational facilities, including stations, natural gas storage fields, training facilities, crew

yards and service centers;

- conducted panel discussions with dozens of employees, focused primarily on compliance and ethics and safety culture; and
- established a Monitor Helpline for PG&E employees to raise concerns directly to the Monitor team, which PG&E has publicized among its workforce.

PG&E has also voluntarily worked with the Monitor to evaluate areas of its business that go beyond the scope of PG&E's initial probation and conviction. For example, following the October 2017 North Bay Wildfires, the United States Attorney's Office and PG&E agreed that the Monitor team would evaluate certain aspects of PG&E's electric distribution operations, including reviewing the adequacy of PG&E's: (1) vegetation management plan, (2) electric pole and equipment maintenance and inspection programs, and (3) emergency response and restoration practices. In this role, the Monitor's activities have included:

- meeting with dozens of electric employees, ranging from the most senior leaders to field employees;
- conducting multiple field visits, including two inspection projects related to electric distribution poles and equipment, a base camp established for response and restoration in wildfire affected areas, and PG&E's Emergency Operations Center and Wildfire Safety Operations Center;
- participating in operational meetings and telephone calls, such as status calls on operational performance and risks related to electric distribution and PG&E's Public Safety Power Shutoff program;
- receiving real-time emergency response and operational updates during and following the 2017 and 2018 wildfires; and
- receiving hundreds of files in response to data requests related to various aspects of electric operations, including: distribution maintenance programs, wildfire safety operations, pole and wire inspection and maintenance, vegetation clearance/management and emergency

response.

PG&E has also engaged in significant remediation efforts in conjunction with the Monitor. These efforts have focused on several different areas and have included projects ranging from testing and retrofitting PG&E's physical gas transmission pipelines, rigorously evaluating PG&E's risk model and overhauling PG&E's compliance processes. Throughout this process, PG&E's reforms have been observed and assisted by the Monitor. Further, PG&E has actively implemented the Monitor's recommendations. For example, when revising the company's Employee Code of Conduct, PG&E employees implemented a variety of changes to the Code of Conduct based on the Monitor's recommendations.[18]

### C. PG&E Would Not Object to Additional Reporting Requirements and an Expansion of the Monitor's Role.

For all of the reasons set forth above, PG&E does not believe the proposed probation conditions are appropriate, and indeed PG&E does not believe it would be appropriate for the Court to impose any new probation conditions that may conflict with the laws and regulations with which PG&E must comply. As noted above, PG&E is already engaged in a wide range of programs to substantially improve wildfire prevention, and it continues to work with its regulators and their staff of experts who have jurisdiction over PG&E's activities and who are actively engaged with PG&E in minimizing the risk of wildfires. However, as noted at the start, PG&E recognizes and shares the Court's concerns over the consequences of the wildfires and the death and destruction they have wrought, and it understands fully the Court's interest in PG&E's wildfire-related activities. With that in mind, PG&E does not object to

[18] In addition to cooperating with the Probation Office and the Monitor, PG&E also is cooperating with wildfire investigations by CAL FIRE and the CPUC. As described in prior submissions to the Court, PG&E routinely submits information to the CPUC and CAL FIRE in the ordinary course and in connection with wildfire investigations. For example, in connection with the October 2017 North Bay Wildfires, PG&E has responded to more than 400 specific requests for information and documents from the CPUC. In connection with those responses, PG&E produced to the CPUC more than 6,500 documents totaling more than 23,000 pages (and is continuing to respond to these requests). PG&E also has responded to at least eight CAL FIRE data requests concerning the October 2017 North Bay Wildfires relating to approximately 20 different potential ignition sites, many of which contain multiple questions, and produced more than 5,000 files constituting more than 140,000 pages.

the Court assigning the Monitor a more active role in reviewing and monitoring the progress of PG&E's wildfire mitigation work being undertaken as described above, and reporting to the Court on the progress of PG&E's work on a periodic basis. *See supra* Sections I.C.1.d, I.C.2.b, I.C.3.a, I.C.3.b. That would enable the Court to stay on top of the steps PG&E is taking both to further mitigate wildfire risk and provide power to the citizens of California safely and reliably.

**IV. Response to the Court's January 17, 2019 Request for Comment.**

In its January 17, 2019 Request for Comment, the Court tentatively found that "the single most recurring cause of the large 2017 and 2018 wildfires attributable to PG&E's equipment has been the susceptibility of PG&E's distribution lines to trees or limbs falling onto them during high-wind events." (Req. For Comment at 1, ECF No. 970.) The Court requested that PG&E comment on the accuracy of its tentative finding. (*Id.*)

With respect to the October 2017 North Bay Wildfires, CAL FIRE has released its conclusions as to the cause of 18 wildfires and determined that 13 of those wildfires were ignited when vegetation contacted PG&E's powerlines. CAL FIRE has released its investigation reports for six of the 13 fires in which it determined that vegetation contact with powerlines was the cause. In those reports, CAL FIRE noted that the ignitions were wind driven and that the wind caused vegetation to break and fall. CAL FIRE is still investigating the potential causes of the 2018 Camp Fire, but it has identified two potential ignition points, one of which could involve vegetation contacting powerlines (the other does not appear to involve vegetation contacting powerlines). PG&E is still investigating the cause of all of those fires, but does not have access to much of the relevant evidence, which remains in CAL FIRE's possession.

More generally, however, PG&E does agree with the Court that vegetation presents an acute risk of wildfire ignition across PG&E's service territory. As PG&E stated in its 2020 General Rate Case Prepared Testimony submitted to the CPUC on December 13, 2018, in PG&E's Tier 2 and Tier 3 HFTD areas, vegetation contacting its facilities is the leading source of electric involved fire incidents. *See* Pacific Gas and Electric Company 2020 General Rate Case Prepared Testimony Ex. (PG&E-4) Electric Distribution Chapter 2A-18 (Dec. 13, 2018) (attached hereto as Exhibit F). This is precisely the reason

that enhanced vegetation management is a pillar of PG&E's ongoing efforts to further reduce wildfire risk since the October 2017 North Bay Wildfires and precisely the reason that PG&E has implemented a program to de-energize when high wind events (and other relevant conditions) merit it.

Respectfully Submitted,

Dated: January 23, 2019

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